July
Aug
Sep
Oct
Nov
Dec
Jan

3

Spectr. Te

Focus . . .

Spectr. Te

Exp. Mtr.

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					DAVID	DUNLAP	OBSERVATORY				
						14"	LOG	BOOK			
							VOL	54			
					PLATE	NOS.		44201 – 45195			
						DEC	1979 –		NOV 1980		

S #1

SAT-Sun

Date Dec. 29-30/79 Observers . B.J.O.-T.H.

Emulsion Batches:
IIa-O e 02059 - 28129
IIa-J-eb 12108 - 18129

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
44201F	Focus Test							Fe/—	5-5	
44201	HD 213307	22h 25.5m	+57° 54′	17 35	17 56	01 40 W	+58° 23′	Fe/ND	5-5-5	400/76
44202	HD 14143	02h 12.2m	+56° 43′	18 00	19.06	00 58 E	+57° 0	"	5-5-5	400/130
44203	MN CASS	01 35.6	+54 27	19 32	22 06	02 39 W	+54 55	"	5-5-5	800/30
44203T	Spot Calib for 44201-03, 06-08, 14			15 min	@ 15V	D4 3900	D3 4300	D2 4810		
44204	HD 33328	05 04.4	−8° 53′	22 11	23 15	00 22 W	−8° 42′	Fe/—	5-5-5	80/300
44205	HD 37468	05 33.7	−2 39	23 19	23 49	00 20 W	—	Fe/—	5-5-5	40/110
44206	HD 42379	06 05.3	+21 36	23 48	01 16	01 20 W	+21 40	Fe/ND	5-5-5	400/120
44206T	Spot Calib for 44204-05, 09-13.			15 min	@ 17.5V	D4 3900	15V D4 4300	15V D4 4810		
44207	HD 46966	06 31.1	+06 10	01 19	02 12	01 51 W	+6 12	Fe/ND	5-5-5	400/90
44208	HD 47432	06 33.5	+01 42	02 15	02 52	02 29 W	+1 42	"	5-5-5	400/100
44209	HD 62509	07 39.2	+28 16	03 00	03 07	1 37 W	+28 8	Fe/—	8-8	40/107
44210	"	"	"	03 13	03 25	1 55 W	"	"	10-10	40/150
44211	"	"	"	03 26	03 37	2 07 W	"	Fe/ND	6-6	40/145
44212	HD 47105	06 31.9	+16 29	03 40	03 54	3 32 W		Fe/ND	6-6	40/110

Spectr. Temp. +42°F Dome Temp./Hum. 37°F / 80% Transparency Conditions ...some thin cirrus...

Focus 505.5

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/68	150μ	IIIaO	B			
400/76	3"	6.3	B7 II	"	"	"	IIIaO-e	A	SB Blk		V. SL. WK
400/130	"	7.17	B2 Ia	"	"	"	"	B	CNO	some cloud	SL. WK
800/30	4"-2"	8.8-9.4	B9	"	"	150/13	"	A	Bjg-Prog	too Faint	Very Wk
	Jan 2	7min	@ 67°F				"				
80/300	3"	4.07	B2 IIIe	BC	G12/68	150/1mm	IIIaJ-eb	B	Be Blk		SL strong
40/110	3"	3.51	O9.5 V	"	"	"	"	A	SB Blk		"
400/120	4"	7.72	B1 Ib	"	"	150/5	IIIaO-e	B	CNO	Set 506.5	V.SL. WK
	Jan 2	5min	@ 67°F				IIIaJ-eb				
400/90	4"	680	O8 IV	BC	G12/68	150/5	IIIaO-e	A	CNO		SL. WK
400/100	4"-6"	6.36	9.7 Ib	"	"	"	"	B	CNO	T=+39°F	"
40/107	3"	2.15	A0 II	"	"	"	IIIaJ-eb	A	Std Vel		FINE
40/155	3"	"	"	"	G8/-025	120/5	"	B	"	Set 504 T=39°F	"
40/145	2-3	"	"	"	"	"	"	A	"		"
40/110	3"	1.9	A0 IV	"	"	"	"	B	A-m of KK		"

over →

Pg #2

7 cont

OCCULTATION 5:17 – 5:38 OF ALDEBARAN

Date .. Dec. 29-30 ..... Observers .... Th .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44213	HD 47105	06 31.9	+16 29	03 57	04 04	3 42 W		Fe/-	9-9
44214	HD 88021.2	10 038	+20 49	04 12	05 05	1 11 W	+20 30	Fe/ND	9-3-3
44215	HD 114846	13 8.1	-18 18	05 9	06 27	0 30 E	-18 3C	"	5-5-5
44215F	Focus					"	"	"	66

Spectr.

Focus

Spectr

Exp. Mt

40/7

400/14

400/85

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Fine .....

Focus ... 307 .....

Spectr. Temp. +38 ..... Dome Temp./Hum. +33°F / 100% Cloud by 6 PM

Comparison Star/Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
+	9-9	40/77	2-3	1·9	AO IV	BC	G8/1025	120/1.5	IIIa-J+b	B	Hom sp + K		V. SL WK
IND	9-3-3	400/140	"	7.20	9G-5 +A2	"	G12/1.68	150/1.5	IIaO-e	A	VB Bkgn	Set 506	GUIDING V SL WK
	555	400/85	4-7'	6.27	AO	"	"	"	"	B	SB Bkgn	ie s E one Brt one & f close pair	GUIDING SL. WK
	66					"	"	150/1.0	098?	B			

9

Emulsion Batches: IIaO-e 02059-28129

Date Dec. 30-31/1979 Observers T.n./Tnn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
44216F	Focus Test							Fe/—	8 G	
44216	HD 222368	23 34.8	+5 05	17 29	17 40	0 18 W	+05 37	Fe/ND	7-7	40/25
44217	HD 219150	23 08.6	+1 39	17 45	19 17	2 22 W	+2 10	"	5-5-5	400/133
44217T	Spot Calc	for 44217-20			15 min @ 15V		04 3900 D3 4300 D2 4810			
44218	HD 16893	2 37.4	+67 23	19 22	21 46	1 19 W	+67 48	Fe/ND	5-5-5	800/150
44219	HD 17706	2 45.4	+64 02	21 59	23 53	3 20 W	+64 18	Fe/ND	5-5-5	800/149
44220	HD 17443	2 42.8	+67 25	0 29	2 33	6 03 W	+67 41	Fe/ND	5-5-5	800/135

Spectr. Temp. ~39°F Dome Temp./Hum. 37°F/78% Transparency Conditions Sl haze, Ok

Focus 506.5

Spectr. Temp. ~34°F Dome Temp./Hum. 27°F/100% ++ Two Frosty

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/68	150/40	IIaO	A			
40/25	1½"	4.64	F7V	"	"	"	IIaO	B	Std Vel		V. SL wk
400/133	1½"	7.57	F0	"	"	150/1.5	IIaO-e	A	Fe Prog		"
	Jan 2		7 min	67°F			"				S
800/150	2"	8.97	A3V	"	"	150/1.3	"	B	Su Cas R Ass.		V SL wk
800/149	2"	8.89	B5IV	"	"	"	"	A	Su Cas R Ass.		V SL wk
800/135	2"	9.12	B9V	"	"	"	"	B	Su Cas R Ass.		SL. wk
						K1K					
							Only 3 strips of IIaO-e in dome				
							(other IIaO box has 6 strips, no 4×55 ; for tests				

(1) Wed/Thurs

Date Jan. 2/3 1980 Observers Ru-Ri / Ly-Ri Vacta Sho

Emulsion Batches:
Tao-02059-28129
Tao-Ex 02059-02010

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44220F	Focus							Fe/-	6-6
44221	HD222368	23h34.8	+5°05	18h30	18h54	1h45W	+5°33	Fe/ND	5-5-5
44222	HD219150	23h08.6	1°39	19h00	19h53	03 08	+2° 8	Fe/ND	5-10
44222T ✓	Opt cable	for 44221 - 44222		15 min @ 15V		D4 3900	D3 02 4330 4x10		
44223	HD17756	2h54	+64°02	23h11	0h33	4h 14W D4 3900	+64 03	Fe/ND	4-4-4
44223T ✓	opt cable for 44223 - 30			15 min @ 15V					
44224	HD28363	4 24.3	+15 57	00 52	2 13	4 16W		Fe/ND	7-7-7
44225	HD72208	8 26.5	+10 09	02 28	4 41	2 41W		"	"
44226	HD72379 →	8 27.3	+10 26	04 44	6 24	4 24W		"	"
44227	HD81441	9 40.2	+24 14	06 29	6 37	3 23W		"	"
44228	HD89449	10 14.3	+19 59	06 42	6 58	3 11W		"	"
44229	HD99028	11 18.7	+11 05	07 02	7 09	2 18W		"	7-14
44230	HD121570	13 49.9	+18 54	07 14	7 17	0 04E		"	10-10
44230T	freq test								6-6

Spectr. Temp. 36°F ? Dome Temp./Hum. -5°C 80% Transparency Conditions Cirrus at first, Then Clear

Focus 508

Spectr. Temp. 23°F Dome Temp./Hum. -9°C 94%

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						BC	G12/.68	200/.5	IIaOe	B			
		90/25		4.69	F7 V	"	"	150/.5	IIaOe	A	Std vel		FINE
		800/67		7.57	F0	"	"	150/3	IIaOe	B	Fe prog	Cloud passing much unsteady	wk
		Jan 2		7mm @ 67°F					IIaOe				
		300/50		8.78	G5 IV	BC	G93/.5	200/.3	IIaOE*	B	SUCas Assoc	Focus 513	fine v sl. flare??
		Jan 4		7mm @ 69°F					IIaO-E*				
		500/200		7.14	F8	"	G8/-.025	120/.3	IIaO-E*	B	Sp Bin - Tri/Lg		fine
		800/50		6.5	A0 p	"	"	120/.5	"	A	Sp Bin - Lg	Focus 508 T=27°F	v sl str.
		300/300		6.2	A0 V	"	"	"	"	B	Sp Bin - Lg		v sl. str.
		400/150		~3.8	G0 III	"	"	"	"	A	Cep - Evans		sl str.
		800/50		5.3	F5 V	"	"	"	"	B	Std Vel		fine
		200/54		4.3	F2 IV	"	"	"	"	A	Asm - KK		v sl. str.
		200/63		2.8	G0	"	"	"	"	B	Asm - KK		fine
							"	"	"	A		T=23°F	

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Date Jan 3/4 1980 Thurs Fri Observers Ly-Ri / Ly-Ri

Emulsion Batches:
098-02-E 20049-17129 cc'
IIaD 02059-02010
IIaJ Fb12108-18129

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44231F	focus test							Fe/—	6-6
44231	HD219634	23h12.2	+61°25'	18:07	19:34	2:53W		Fe/ND Ne	5-5-5 5-5-5
44231T	spot cal 44231, 39			15min @	15U D3 4810	7U D1 Hα	7U D2 5450		
44232	HD219363	4 23.3	+15 57	19:57	22:57	01:04W		Fe/ND	7-7-7
44232T	spot cal tri plates	44232-33,	36-38	15min @	15U ats	D4 3900	D3 4300 D2 4810		
44233	HD 30869	4 46.2	+13° 29	23:04	00:45	02 28W		Fe/ND	7-7-7
44234	HD33328	5 04.4	-8° 53	00:59	01:47	03 14W		Fe/—	5-5-5
44235	HD37468	5 32.7	-2° 39	01:53	02:27	03 24W		Fe/—	5-5-5
44235T	spot cal tri plates	44234-35		15min @	17.5U D4 3900	15U D4 4300	15U D4 4810		
44236	HD37128	5 31.1	-1° 16'	02 31	02 32	03 32W		Fe/ND	7-7
44237	HD37742	5 35.7	-2°00	02 36	02 38	03 33W			
44238	HD72208	8 26.5	+10 09	02 59	03 41	01 45W		Fe/ND	5-5-5
44239	HD86590	9 54.24	+25°02'	04:06	06:40	03.17W		Fe/ND Ne	5-5-5 5-5-5
44240	HD107328	12:15.3	+03°53	06.47	07:04	01:20W		Fe/ND Ne	5 5 5 5 5 5
44240F	focus test							Fe/—	10-10

Spectr. Temp. 24°F ..... Dome Temp./Hum. -09°C ..... Transparency Conditions ... Good .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. -13°C 92%

e/p one meter removed at start of night

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	G8/-.025	120	IIaO	B		509 24°F	
400 ~ 260		70?	B8	B.C.	G16/.7	120/3	098-01	B	Sp Bin - Ly	512 24°F	Fine
Jan 4		5min @ 67°F	D19				098-01				
400/260		7.12	F7V	B.C	G8/-.025	120/3	IIaO-E	A	Hyades - Tur.	510 22°F	s/str
Jan 4		7min	@ 68°F	D19			IIaO-E				
150/ 200		6.77	F7V	BC	G8/-.025	120/3	IIaO-E	B	Hyades - Tur		Fine
40/ 90		4.07	B2Ve	BC	G12/.68	150gr/.7	IIIaJ-Eb	A	Be - Bln	514 18°F	str
40/ 110		3.51	09.5V	"	"	150/1mm	"	B	Sp Bin - Bln		str
Jan		5min @	67°F	D19			"				
40/20		1.51	BOIa	BC	G12/.68	150/1mm	IIaO e	A	CNO - Bln		Fine
40/20		1.59	09.7Ib	"	"	"	"	B	CNO - Bln		Fine
400/110		6.5	A0p	"	G12/.68	150/.5	"	A	Sp Bin - Ly		Fine
400/150		7.91	dK0	"	G16/.7	150/5	098-01E	B	SB - Bln	----- windy tilt on grating	wk
150/ 26		V4.95	K1	"	"	"	"	A	Std Vel		wk
					-.025	150/5	098-01E	B		514 15°F	

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7m 68°

Emulsion Batches:
Tao-E 02059-03010
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Date Sat Sun Jan 5-6 1980 Observers ....R.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44241F	focus test							Fe/—	6-6
44241	HD 213307	22h 25.5	+57° 54	17:35	18:00	02h 43W		Fe/ND	6 6 6
44242	HD 219150	23h 08.6	+01° 39'	18 09	19:45	03h 14W	+02° 10'	Fe/ND	6-5 5
44242T ✓	spectral to plate 44241-				15m @ 15 Volts		D4 3900	D3 4300	D2 4800
44243	HD 16429	02h 33.1	+60° 51	19:57	21:20	01h 23W	+61° 15'	Fe/ND	5-5-5
44244	HD 16832	02h 36.9	+56° 14	21.29	23.43	03h 43W	+56° 35	Fe/ND	5-5 5
44245	HD 25638	03h 59.0	+62° 03	23:53	00:49	03h 25W		Fe/ND	5-5-5
44246	HD 27192	04h 12.6	+50° 41	00:56	01:14	03 30N		Fe/ND	5-5-5
44247	HD 42379	06 05.3	+21° 36'	01:20	02:55	03 28W	+21° 36'	Fe/ND	5-5-5
44248	HD 65583	07 54.3	+29° 31	03.04	04:29	03h 13	+29° 48'	Fe/ND	5-5-5
44249	HD 117555	13h 26.04	+24° 44	04:37	06:37	00h 09E	+24° 22	Fe/ND	5-5-5
44250	HD 107328	12h 15.3	+03 53	06 50	07:23	01h 42W		Fe/ND	5-5-5
44250F	focus test							Fe/—	6-6

Spectr. Temp. ...26°F..... Dome Temp./Hum. -05°C 60% Transparency Conditions ..excellent.....

Focus .....511 - 513...

Spectr. Temp. ...18°F..... Dome Temp./Hum. -12°C 89%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						150	IIaO	B		511	
100 Exp MTR	2	6.3	B7V	B.C.	G12/.680	150/.5	IIaO-E	A	SB Bln		Str
"	2	7.57	F0	B.C.	G12/.680	"	"	B	Fe*		Fine
							IIaO-E				
800/200	2-3	8.29	09.5III (Nw)	BC	GR/.680	150/.5	"	A	CNO/Bln		Fine
800/240		9.25	09.5II	"	"	250/.5	"	B	"		Fine
400/		7.12	B0II	"	"	150/.5	"	A	EB-Bln		Fine
200/7	2	5.50	B2IV	"	"	150/.7	"	B	Bln/Lne		Fine
800/240		7.72	B1Ib	"	"	150/.5	"	A	CNO/Bln		Fine
800/220		7.9	G7	"	"	"	"	B	Std Vel	513 20°F	Fine
800/300		8.7-8.83	gGe	"	"	250/.5	"	A	EB-Bln		Fine
200/90		6.1	ho	"	"	150/.5	"	B	Std Vel		Fine
						150		B		513 18°F	

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Date ... Jun 9/10 1940 Observers Ray-Th / Ly-Th

7m 68s

Emulsion Batches:
IIaO-E ... 02057 - 03010
IIaO-E* ... 07119 - 07010

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44251 F	Focus							Fe/—	1-1
44251	HD 222368	23h 34.8	+5° 05	17:38	17'43	1h 00 W	+5° 36	Fe/	6-5-5
44252	HD 208155=NE 857	21h 17.4	+37°49	17h 51	18:31	4' 09 W	+38° 13	Fe/	5-5-5
44253	HD 4180	00h 39.1	+47°44	19h 05	19h 13	1h 27 W	47° 13	Fe/	5-5
44254	HD 17706	2h 47.4	+64° 02	19h 21	21' 26	1h 31 W	+64° 23	Fe/	3-3-3
44255 T	Spot cal for 44251	44251	-55.			15 min @	15V D4 3	D2	
44255	HD 17706	2h 45.4	+64° 02	21h 43	00h 02	4h 10 W	+64 23	Fe/	4-4-4
44256	HD 28363	4h 23.3	+15 57	00 17	01 58	4 21 W	+16 10	4	4-8-
44256 T	Spot Cals for 44256					15 min @ 15V	D4 3900	D3 4200	D2 7210	
44257	HD 72208	8 26.5	+10 09	02 09	03 55	2 22 W	+9 54	Fe ND	7-7-7
44257 F								Fe/—	7-7

Spectr. Temp. 23°F Dome Temp./Hum. 14°F/70% Transparency Conditions ... Semi-Clear

Focus .. 512

Spectr. Temp. +15°F Dome Temp./Hum. +7°F/91%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/.68	150/4.0	IIaO	A			
	4"	4.64	FTI	"	"	150/.5	IIaOE	B	Std vel		Fair
		4.49	F2	"	"	150/.5	IIaOE	B	Cyclad/Evans	cloud s/storm	P
	5"	4.49	BTI	"	G43/.5	150/.5	IIaOE	A	SU Cas Assoc	516.5 focus T-20°	Good
	4'-6"	8.71	BSII	"	"	150/1.3	IIaOE	B	SU Cas Assoc		Fair
							IIaOE				
300/174	4"	7.71	BSI	"	G12/.68	200/.3	IIaOE	A	SU Cas Assoc	SH Focus T Reduced cloudy	Fair
400/120	4"	7.12	FTI	BC	G12/-.025	150/.3	IIaOE*	B	Hyades - Tmr	512 T=15°F	Fair
							"				
400/72	3"	6.5	AOp	BC	G2/-.025	150/.5	IIaOe*	A	Sp Bin - Lg	hazy - cloudy	Good
				"	"	"	IIaJ	A		"	

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Date Jan 10/11 1980 Observers KK Eng: tests

Emulsion Batches:
IIIaFz 17017-10109
IIIaJeb -08010

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44257 T1	Spot cal.	IIIaJ untreated	(1)	4300	D4 17½ᵛ 15ᵐ				
T2	Spot cal	IIIaJ evacuated only	(2)	4300	D4 17½ᵛ 15ᵐ				
T3	Spot cal.	IIIaJ e + 24ʰʳ bake	(3)	4300	D4 17½ᵛ 15ᵐ				
44257 F2	Focus & comparison test							FeNe/66	5
F3	"							"	15
F4								FeNe/66 + 4110	10
F5								FeNe/66 + 4110	10

Spectr. Temp. 24° ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus ..... 512 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G16/.7	120μ	IIaFe	B			
				"	"	"	"	"			
				"	G14/.68	120/180	IIaO e	B			
				"	"	"	"	"			

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SAT SUN

CRd

(Cameron)

6m 68°

Emulsion Batches: IIaO-e 07119 - 07010

Date JAN. 12-13/80 Observers Waterloo Student - Ty

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44258	HD 38670	5 42.4	+20 50	22 27	22 56	00 18 W	+20 58	Fe/ND	55
						04	03	02	
44258T	Spot Calib	for 44258	-61		15min@15V		3900	4306	4810
44259	HD 16895	2h 37.4	+48 48	23 03	23 10	03 37 W	+49 15	Fe/ND	5-5
44260	HD 82381	~~9h 29.3~~ 9 26.5	~~9° 56~~ +10 09	23 18	0 0	02 22 E	+9 52	"	3-5
44261	HD 74874	8 41.5	+6 57	00.09	00 40	00 55 E	+6 34	"	55
~~44261F~~	~~Focus Test~~							Fe	~~15~~

Spectr. T
Focus
Spectr.

Exp. Mtr.

400/0-5
4½/10
400/35
4½/or 15

Spectr. Temp. +24°F ..... Dome Temp./Hum. +18°F / 85% Transparency Conditions ..... Clear by 22 hrs .....

Focus .... 512 .....

Spectr. Temp. 23 °F ..... Dome Temp./Hum. +16°F / 89%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/95	4"	5·02	B9	BC	G12/68	150μ	IIaOe	A	Wat prog		Fine
							"				
46/10	3"	4·6	F7	BC	G12/68	150μ	"	B	Wat prog		Fine
400/135	4"	4·5	K3II	"	"	"	"	A	"	cloud	Fine
400/98	3"	3·98	F8	"	"	"	"	B	"	cloud	Fine
							IIaF	A		filter wheel failed	
										* All here in front of slit	

23

Date . Mon.-Tues. Jan 14-15 Observers . But.-Tn .....

Emulsion Batches:
. IIa-e 07119-01010 16172
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44262	HD 81797	09 22.7	-8 14	02 32	02 39	0 30W	-8 27	Fe/ND	1-5-5
44262T	Spot Calib for 44262-65.				15 min @ 15V	D4 3400 D3 4300	D3 4810		
44263	HD 96003	10 59.3	+13 12	02 52	04 43	0 58 W	+12 54	Fe/ND	5-9-8
44264	HD 110066	12 34.4	+36 30	04 47	05 49	0027W	+36 09	"	8-5
44265	HD 135619	15 11.3	+26 01	0551	07 14	00 42E	+25 07		1-8-5
44265F	Focus Test					"	"	Fe/—	

Spectr. Temp. +37°F ..... Dome Temp./Hum. +32°F/99% Transparency Conditions ..Clear..by..2 PM.....

Focus ..507.....

Spectr. Temp. +35°F ..... Dome Temp./Hum. +28°F/99%.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/14	ov-f exp.	3.40	F0 III	BC	G2/168	10μ	IIaO-e	A	stdvel	seeing 2-3" at start, improving	star in comparison decker
							"				
400/80	1-2	6.15	A_1	BC	G2/168	10μ	"	B	A_p MR		v sl str.
400/83	"	6.55	AC_p	"	"	"	"	A	A_p MR		v sl str.
400/70	1"	6.67	B9	"	"	"	"	B	A_1 MR		v sl str
				"	"	"	IIaF	A			ok

25

Emulsion Batches: IIa-0 07119-07010 15 180

Date Tues-Wed. Jan. 15-16, 80 Observers But-Tr

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mir
44266	HD 81797	09 22.7	-08 14	00 57	01 01	1 03 E	-8 28	Fe/Ne	6-6	45/14
44265T	Spot Calib for 44266	-69			15 min @ 15V		04 3400	B3 4300	14 48	
44267	HD 63887	07 46.1	+71 57	01 12	03 29	2 57 W	+71 36		6-6	40/30
44268	HD 138406	15 26.8	+62 05	03 41	05 31	-02 35 E	+61 53	"	6-6	75
44269	HD 137182	15 19.5	+10 54	05 36	07 06	0 54 E	+10 42	"	6-6	30
44264F	Focus test							F-L	F-5	

Spectr. Te
Focus
Spectr. Te

Spectr. Temp. +37°F ..... Dome Temp./Hum. +30°F / 80 % Transparency Conditions . Clearing 26

Focus ... 508 .....

Spectr. Temp. 32°F ..... Dome Temp./Hum. +25° / 82 %

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/14	3"	3.40	KA II	EC	G 12/58	120μ/5	IIaO-e	A	stdvel	1" [illegible]	F-c
							"				
400/80	3"	7.52	AOp	EC	G 6/66	120μ/5	"	B	Ap MR	mainly cloud some cloud	[illegible]
4[illegible]/75	3"-6"	6.79	AO	"	"	"	"	A	Am MR	CLOUD	[illegible]
400/70	2-3	7.19	AO	"	"	"	"	B	Am MR	[illegible]	[illegible]
				"	"	1"	IIaF	A			

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Date 20/21 JAN '80 SUN/MON Observers Bln/Tn

Emulsion Batches: Tol: E 16 16

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44270F	Focus							Fe/-	16 16
44270	HD222368	23 39.8	+5°05'	17 57	18 06	2 08W	45° 37'5	Fe/ND	8 8
44271	HD12323	01 55.8 H	+55°08	18 16	20 30	02 01W	+55 36	Fe/ND	4 4
44271T	Spot Calib for 44270		-71		15 min @ 15U		D4 3900 D3 4300	D2	4 3.0

Spectr. Temp. 32° F ..... Dome Temp./Hum. 28° F/H=75 % Transparency Conditions .....

Focus 509 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/68	150/40	IIaF	4		F=509 T=32°	good
40/12	3'	1.64	F7V	BC	G12/.68	150/.5	IIa-0E	B	std. Vel.		v s/sn
800/142	3-4	3.88	ON9V	BC	G12/.68	250/.5	IIa-0E	A	SB-Blu		fine
							IIa-0E				

29

Emulsion Batches: IIaO.e ..... #7 206

Date Wed. Thurs Thurs 03/24 1980 Observers Ly-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44272F	FOCUS							Fe/-	6-6
44272	HD72208	08 26 5	+10 09	00 57	03:16	2:38W	+09°56	Fe/ND	4-4-4
44272T	spectral for plates 44272-44276			15 min @ 150 volts		DA 3900	DB 4300	DC 4910	
44273	HD72359	08 27.2	+10 24	03 20	04:34	03 55W	+10 11	Fe/ND	4-4-4
44274	HD89449	10 14.3	+19 59	04 44	05 07	02 41W	+R 30	"	"
44275	HD84811	9 40.2	+24 14	05 11	05 15	03 24W	+23 57	"	4-4
44276	HD119706	13 40.2	-15 16	05 25	06 27	00 36W	-15 35	"	4-4-4
44276F	Focus						-15 35	Fe/-	1-6
								[illegible]	9
	Thurs 24, 1980	Ri						[illegible]	
44276T1	test							Fe Ne 6.6+1.0	9
44276T2	test							Fe Ne 6.6+1.0	12

Spectr. Temp. 20°F ..... Dome Temp./Hum. -15°C / 75% Transparency Conditions ... Snow on Obj. A.M. 30 during 1st half but cleared for 2nd half - clear cold

Focus ... 513 .....

Spectr. Temp. ..... Dome Temp./Hum. -15°C / 77%

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	60					BC	G12/68	150/5	IIaOe	B			ok
	4.4	500/200	10"	6.5	AO?	"	"	"	"	A	Sp Bi - Ly		Fe wk Fine
									IIaO-E				
	4.4	800/200	4.5	6.5	AO	BC	G12/68	150/5	"	B	Sp Bi - Ly	515 14°F	Fe wk Fine
		200/50	3	5.3	F5L	"	"	"	"	A	Sp Ld Ld	516 12°F	Fe wk Fine
	4	80/24	3	3.8	G9Tp	"	"	"	"	B	Gpd - Evans		Fe wk Fine
	4.4	400/89	3	6.15	AO	"	"	"	"	A	Sp Bi - Bln	ended by cloud	Fe wk Fine
	1.1					"	"	"	"	B		516 10°F	ok
	9					BC	G12/68	150		A		513 18°F	sl ok
	12					BC	"	150		B		" "	ok

31

Date Fri 24- Jan 25 1980 Observers ....Bla.-Ri.....

Emulsion Batches: 6"68 IIa-F 07119-15010 17 m9

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44277F	focus Test							Fe/—	6-6
44277	HD 88021/2	10h 03.8	+20°49'	01 59	04 17	02 07W	+20°28	Fe/ND	4-4-4
44277T	spectral for plates	44277-			15min @ 152volts	D4 3900	D3 4300	D2 4910	

Spectr. Temp. 18° F ..... Dome Temp./Hum. -10° 9% .. Transparency Conditions 32

Focus .. 513 .....

Spectr. Temp. 16° F ..... Dome Temp./Hum. 11° F .. 81%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G12/.68	150	IIaO E	B		18°F 513	
—	2-3	720	965 A2	B.C	G12/.68	150/5	IIaO-E	A	VB-B/L	Cloud	S/ STR. comp. wks
							IIIaO-E				

33

Date Mon. Jan 27-28. 1980 Observers Ri

Emulsion Batches:
IIaOE 07119-15010

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44278F	focus test							Fe/—	6-6
44678	HD 92588	10 36.3	-01° 13'	01:59	03:23	00h 52m W	-01° 34	Fe/ND	4-8
44278T	spectral test plate				15 min @ 15 Volts		D4 3900 D3 4300		D2 4810

Spectr. Temp. ...28°F..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....510.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G12/ .680	50	IIaOE	B		28°F 510	
800/138		74	K1	B.C.	G12/ .680	150/5	IIaOE	A	Stel Vel	cloudy	Fe wk Si wk

Comparison Filter Exp

6 s

1+8 P2 48.0

35

6" 68°

Emulsion Batches: IIaD-E 07119-15010

Date Wed. Jan 28-29 1980 Observers BG-R.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44279F	focus							F/—	66
44279	HD16727	02 35.8	+54° 41'	18.00	1859	+00 28W	+55° 02'	F/ND	4.12-3
44280	HD17330	02 41.8	+29 17	1903	2034	+02 00W	+29 40	"	5-55
44280F	optical fr plate	44279 -80.			15 min @ 15	Volts 3980	D3 4300	D2 4910	

Spectr. Term
Focus
Spectr. Term

Exp Mtr.

Spectr. Temp. 26°F ..... Dome Temp./Hum. -09°C ... 80% Transparency Conditions .....

Focus ... 511 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/.64	70	IIaD-E	B		511 26°F Fe wk	
800/181		5.61	138p	"	"	70/.5	"	A	Ap NR		Fine
700/135		7.17	138p	"	"	120/.5	"	B	"	clouds	Fe wk s/wk
							IIaD-E				

37

6¼"×6" Emulsion Batches: IIaD 07119-15010 16 197

Date TUES. WED. JAN. 29/30 1980 Observers B.A.-R.L.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44281	HD 17374	01 08.8	+15 36	17 57	19 18	+02 21	+16 04	Fe/ND	8-14
4428F	focus test							Fe/-	6-6
44282	HD 17330	02 41.8	+29 17	19 22	20 01	+01 30	+29 37	Fe/ND	6-12
44282T1	spectral f. 44281-82.			15min @ 18volts		39m ND	43m ND 4		
44282T2	comparison test			10s comparison		30 sec stellar		Fe/ND	
44282T3	"			10s comparison		30sec stellar		Fe Lo 66 1.2	
44282T4	"			12s comparison		36 sec stellar		Fe Lo 66 1.6	

Spectr. Focus Spectr. Exp. Mi

16 197

Spectr. Temp. 24° ..... Dome Temp./Hum.- 10°C ... 70% Transparency Conditions .....

Focus ..... 512 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/181	4-00	5.8	BBIIp	BC	G12/	70μ/5	IIa-E	A			
				"	"	70μ/5	IIaE	B	Ap MR		
50?/51		7.17	BBp	"	"	120/	"	B	"	SNOW	1 wk
				"	"	120/1	IIaJ-E	A			
						"	"	B			
				"	G2/-.025	120/1	IIaJ	A			

39

Date Wed/Thurs Jan 30/31 Observers B-T

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44383F1	Focus Test							Fe/—	12-12
44383F2	" "							Fe/—	12-12

Spectr. Temp. 16°F Dome Temp./Hum. 18°[illegible] Transparency Conditions

Focus 514.5

Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
[illegible]	[illegible]					13C	G12/.68	150μ	IIaD	A	without new Field Lens	16°F focus 514.5	[illegible]
[illegible]	[illegible]					"	"	"	"	A	with new Field Lens		[illegible]

41

Thurs-Fri

Date JAN 31-Feb 1 80 Observers G.A.-T.A./E.H.-T.A...

9" 68° Emulsion Batches: H.E. 12/78 16 242

7" 68° H&D E 07119-15 & 0 16 215

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Min
44283	HD 209 02 2 per	03 17.2	+49 30	22 03	22 33	3 35 W	+49 12	No/-	3-30	40/
44283T	Spot Calc for 44283-87.			7 min	D4 10 min 3580	D4 10 min 8450	D3 30 min 2960			
44284	HD 20902	03 17.2	+49 30	22 36	23 12	4 14 W	+49 52	No/-	3-30	40/
44285	HD 47105	06 31.9	+16 29	23 23	23 58	01 46 W	+	"	10	4/
44286	HD 47432	06 33.5	+01 42	00 04	00 48	02 34 W	+01 45	Fe/No.	6-6	40/20
44287	HD 47379	06 05.3	+21 36	00 50	02 45	05 00 W	+21 40	Fe/	6-6	40/
44287T	Spot Calc for 44285-90.			15 min @ 15"		D4 3400 D3 4300 D2 4810				
44288	HD 88021/2	10 03.8	+20 49	02 50	04 31	02 48 W	+20 31	Fe/	6-6	40/20
44289	HD 114 846	13 08.1	-18° 18'	04 37	06 27	01 40 W	-18° 39'	Fe/	6-6	40/20
44290	HP 161096	17 38.5	+4° 37'	06 33	06 39	02 37 E	+4° 41'	Fe/	2-4	40/20
44290T	Focus Test							Fe/-	12-12	

Spectr. Temp. 1.12°F ..... Dome Temp./Hum. 13°F/71% Transparency Conditions ..... very gusty from N

Focus .... 516 - 517 .....

Spectr. Temp. 16° F ..... Dome Temp./Hum. 7°F/80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/111		1.79	F5 Ib	BC	G24/1.9	150/.3	HIE	B	IR Ceph	V fi Her	light struck at telescope
							"				strong
40/110		1.79	F5 Ib	BC	G24/1.9	150/.3	"	A	IR Ceph	"	strong
40/107	3"	1.9	A0 IV	"	"	"	"	B	[illegible]	[illegible]	strong
400/100	3	6.36	69.7 Ib	BC	G12/1.68	150/.1	IIa-0E	A	CND-Blu	T=10°F	Fine
400/≈100	3-7°	7.72	B1 Ib	BC	G12/1.68	150/.1	IIa 0E	B	CND-Blu	* Middle arc caused Exp meter to fire spuriously after coupling and th...	Fine
							IIa-0E		(extra Fe Arc uncoupling -	after coupling and th... ie Almost a dbl exp)	
400/160	3-6"	7.20	SG5 + A2	BC	G12/1.68	150/1.5	IIa-0-E	A	V B Blu	+10°F	sl strong
400/98	4-7"	6.27	A0	BC	G12/1.68	150/.1	IIa 0E	B	SB Blu	F = 517 + 7°F	v sl strong uneven
40/20	6	3.93	K2 III	BC	G12/1.68	150/.5	IIa-0E	A	std. Vol.		sl strong
				BC	"	150/1.0	IIaFE	B		F = 517	~tv Red

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Date Fri. Sat Feb 1-2 1980 Observers Tar.-Ri.

7m 68s * Emulsion Batches:
Tmax-E 07119 - 2500 17 210
Tmax-E 07119 - 0102 16 200

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44291F	focus test			-				Fe/-	6-6
44291	HD 18884	02h 57.1	+03°42'	18 30	18.35	00h 02W		Fe/ND	6-6
44292	HD 17327	02h 41.8	+64°14	18.47.	19:47	00h 26W	+64°35	Fe/ND	6-6-6
44292T ✓	spectral tri plate	44291 & 92			15 min @ 15 Volts		D3 4300	D2 4810	
44293	HD 30869	04 46.2	+13 29	19 56	20: 48	00h 25W	+13° 41	Fe/ND	8-8-8
44294	HD 98363	04 23.3	+15° 57	20 52	21: 47	01 47W	+16°13	"	8-8-8
44294T ✓	spectral tri plate	44293-			15 min @ 15 Volts		D3 4300	D2 4810	
44295	HD 17443	02 42.8	+67 25	22 12	00: 59	06h 38W	+67°39'	Fe/ND	6-6-6
44296	HD 16893	02 37.4	+67 23	01 11	04 03	09 49 W	+67°40'	Fe/ND	6-6-6
44297	HD 136202	15 14.2	+02 09	04 19	04 33	02 50 E	+01°54'	Fe/ND	6-6-6
44298	HD 119786	13h 40.2	-15° 16'	04.47	05 33	00h 18W	-15° 33	Fe/ND	6-6-6
44299	HD 107328	12 15.3	+03° 53	05 41	06; 29	02h 38 W	+03°29	Fe/ND	6-6-6
44299F	focus test							Fe/-	8-8

Spectr. Temp. 12°F Dome Temp./Hum. -13°C 75% Transparency Conditions . Excellent

Focus 516 - 517

Spectr. Temp. ..... Dome Temp./Hum. -19°C 81%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5				BC	G12/.680	150/5	IIaO E*	B		12°F 516	v sl red
800/66	2-3	4.16	M2III	BC	G12/.680	150.5	IIaO-E*	A	Std Vel		Star in comp. decker
800/161		7.97	B8III	BC	G12/.680	150/3	IIaO-E*	A	Tnr - Su Cas Assoc.	* plate broken - 3 pieces.	Fine
							IIaO-E*				
400/120		6.77	F7V	BC	G8/-.025	150/3	IIaO E	B	Tnr - Hyades Binary	G12 focus.	
400/120		7.12	F7V	"	"	"	"	A	"		fine
							IIaO-E				
800/150	2-3	9.12	B9V	"	G12/.680	150/3	IIaO-E	B	Tnr - Su Cas Assoc.	tele reversed wisky	Fine
800/120	3-5	8.97	A3V	"	"	"	"	A	"	"	fine
400/80	2-3	5.6	G0	"	"	"	"	B	Std Vel	07°F 517	v sl str.
400/120		6.15	A0	"	"	150/5	"	A	SB - Blk		v sl str.
400/200	3-5	6.1	K1	"	"	"	"	B	Std Vel		v sl str.
						150/5		B		+06°F 517	ok

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Date . Sat-Sun. Feb. 2-3/80 Observers . Tar.-Tu./. Tu.....

Emulsion Batches: 7m 68 ..IIa0-E..07119-01020 16 18

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44300F	Focus Test					~ 0m	+24°	Fe/—	15-16
44300T	Spot Calcs for 44300-44306				15 min e	15V D4 3950	D3 4300	D4 4.0	
44300	HD 129239	02 01.5	+22 59	18 02	18 07	01 23E		T/—	7-9
44301	HD 17327	02 41.8	+64 14	18 15	19 27	01 10 W	+64 39	Fe/ND	6-6-6
44302	HD 30869	04 46.2	+13 29	22 42	23 30	03 11 W		Fe/ND	8-8-8
44303	HD 28363	04 23.3	+15 57	23 34	00 43	04 48 W	+16 12	Fe/ND	8-8-8
44304	HD 72208	08 26.5	+10 09	00 51	01 46	01 48W		Fe/ND	8-8-8
44305	HD 113028	12 48.3	+83 58	0222	02 37	01 40E		Fe/ND	6-6-6
44306	HD 138406	15 36.8	+62 05	0250	04 11	0243E	+61 50	"	6-6-6
44306F	Focus Test					02 30E	0°	Fe/—	16-16

Spectr. Temp. +11.5°F ..... Dome Temp./Hum. +7°F / 73% Transparency Conditions ..... Snowy & Cloudy

Focus .... 516 / 573 for G8

Spectr. Temp. ..... Dome Temp./Hum. +3°F / 90% Gusty N winds

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G2/68	150/1.0	II-F	A			sl red
							IIaO-E				
40/16	2	3.15	K2 III	BC	G12/.680	150/.5	IIaO-E	A	std vel		Fine
400/100	1-2	7.97	B8 III	B.C.	G12/.680	150/.5	IIaO-E	A	Tmr~ Su Cas Assoc.		v sl sm
400/120	3-4	6.77	F7 V	"	G8 [illegible]	150/.3	"	A	Tmr Hyades Rim	T=+12.5°F Set 513	
400/109	4	7.12	F7 V	"	"	"	"	B	"		sl wk grey
400/153	3	6.53	Abp	"	"	150/.5	"	A	Ly Programs.	"	Fine
400/105	3"	5:28	B8	"	G12/.68	150/.5	"	B	Shell-Rich	Set 516 T=+10°F	"
400/100	4-6'	6.79	A0	"	"	120/.5	"	A	Am PAR	some snow	v sl grey Fine
				"	"	100/1.0	IIaO-E	A	Set 516 T=+9°F	Cold	v sl red

47

Date 3/4 February '80 Sum/Mon Observers Bln - Tn

7m 68 Emulsion Batches: ..IIaO-E..07119..-02020 16 132

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44307	HD 42379	06 05.3	+21 36	22 22	01 13	3 39W	+21 38	Fe/ND	6-6-6
44307T	Spot Calc for 44307-09			15 min @15V		D4 3900	D3 4300	D2 4810	
44308	HD 81797	09 22.7	−8 14	01 41	01 47	0 57W		Fe/ND	6-12
44309	HD 138406	15 26.8	+62 05	02 09	02 50	3 51 E	+61 51	Fe/ND	6-6-6

Spectr. Temp. 15°F 515 ... Dome Temp./Hum. 12°F/99% ... Transparency Conditions ... Clouds ... forming ... again ...

Focus ..... 515 .....

Spectr. Temp. 16°F ..... Dome Temp./Hum 19°F/90% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/~~95~~	2	7.72	B III	BC	G12/.68	150/.5	II-0E	B	CNO-Blu	Scintillation!! Cloud	Fine *
							"		(Exp midpt should be weighted earlier)		
40/17	4"	3.40	K4 III	BC	G12/.68	150/.5	"	A	Std Vel	T=+16°F	Fine *
40/50	"	6.79	A0	"	"	120/.5	"		For IUE	Cloud	fine ~~Lock~~

* Flex in Fe Arc ? Yes! comp lines almost doubled on 8

strong Y flex on 7

something loose?

49

Mon-Thurs

Date 4-5 Feb 1980 Observers Burt-Ir

7° 69° Emulsion Batches: IIa-O-E 0719-0201 019

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44310	HD 12759	02 01.5	+12 59	18 05	18 08	W	12 27		5-12
44311	HD 7374	01 08.8	+15 36	18 12	18 52	02 23W	+	"	7-11-1
4-311T	Spec Calib for 44310-20				15 min @	15V 3900 D4	4300 D3	D2 45	10
44312	HD 16127	02 35.8	+54 41	19 01	19 41	0139W	+55 06		1-3-11
44313	HD 22860	03 35.2	+28 23	1946	2100	0200W	+2895	"	7-7-7
44314	HD 26571	04 07.0	+22 09	21 [illegible]	21 02	0230W	+22 26		10-20
44315	134 Tau HD 34029	05 43.4	+12 37	22 06	21 23	01 [illegible]W	+12 [illegible]		1-1-10
44316	HD 43496	06 11.4	+15 53	22 30	23 38	0202W	+15 58	"	7-7-7
44317	HD 63887	07 46.1	+71 57	23 43	01 32	02 17W	+71 57	"	7-7-7
44318	HD 96003	10 59.3	+13 12	01 37	03 17	0054W	+12 51	"	1-10-c
44319	HD 134305	15 04.0	+12 52	03 25	05 01	01 26E	+12 39	"	7-7-7
44320	HD 137182	15 19.5	+10 54	05 04	06 46	0 04W	+10 42	"	7-7-3

Spectr. Temp. +17°F ..... Dome Temp./Hum. 43°F / 72% Transparency Conditions Excellent 50

Focus ..... 5M .....

Spectr. Temp. +12°F ..... Dome Temp./Hum. 49°F / 80%

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		40/16	2"			SC	G2/68	70/5	IIa-F	B	5 t/ vsl		vsl sov
		300/186	2"	5.80	B8 III	"	"	"	"	A	A_p MR		fine
		400/92	1-2"	5.61	B8p	BC	G2/68	70/5	IIa-F	B	A_p MR		vsl sov
		600/110	"	6.87	B8	"	"	120/5	"		"		"
		400/90	"	6.15	B8 III	"	"	70/.5	"	B	"		"
		400/		4.8	B8 III	"	"	"	"	A	A_p MR	very	F
		400/90	2	7.16	B9	"	"	70/5	"	B	A_p MR	T = +15°	"
		400/90	2-3	7.52	A0	"	"	"	"	A	A_p MR		"
		400/90	2-3"	6.75	Ap	"	"	70/.5	"	B-	A_p MR		"
		400/90	2"	7.24	B7p	"	"	120/.5	"	A	A_p MR		"
		400/90	2"	7.19	A0	"	"	"	"	B	A_m MR	"	"

51

Tour - 30 mm Objective

Date 5-6 FEB TUES/WED Observers But - Tu

Emulsion Batches: Tri-X 07119-04020

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4321F	Focus Test							F-1/ND	15-15
4322	HD 16127	02 35.8	+54 41	20 09	21 31	03 33 W	+54 58		10-15-15
4323F ✓	Focus Test for 4321-22				15 min later	124 3 90	43		
4324	HD 62509	07 39.2	+28 16	21 41	21 46	01 14 E	+28 01	FC/ND	15-15
	~~HD 43496~~	~~05 11.4~~	~~+15 53~~	~~21 53~~				"	7-

Spectr. Temp. ..7.17.1..... Dome Temp./Hum. 77½ / 75.2 Transparency Conditions ..Ind. Cirrus.....

Focus ....2-1/2.....

Spectr. Temp. ..18°F..... Dome Temp./Hum. 12° / 92%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G2/48	70/5	103a-E	A		(Red) V3 / mf	
700/180	1-2"	5.61	BBp	BC	G1/168	70/5	"	B	Ap MR		Fair
							"				
1 c/30	1"	3.15	KOIII	BC	G2/168	70/5	"	B	STD TAL	prob blank or Lost	
[illegible]		7.16	[illegible]	"	"	[illegible]	"		Ap MR	TOO THICK	

C1

S3

Emulsion Batches: 7m68 L.20-E 9H.9-05020 17 208

Date 6-7 (EP West Time) Observers Tn / Ly-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44323	HD 97432	06 33.5	+01 42	23 03	23 53	2 04 W	+1 43	[illegible]	[illegible] 6 6
44323T	Spot Calib for 44323			15 min @ 15V		D4 3900	D3 4100	D2 [illegible]	
44324	HD 62509	07 37.2	+28 16	23 58	00 00	1 04 W	+2809	[illegible]	[illegible]
44324F	Focus Test					"	+2809	[illegible]	[illegible]
44325	HD 65[illegible]6	08 21.4	+06 10	00 15	01 38	3 50 W	+6 10	[illegible]	[illegible]
44326	HD 72208	08 26.5	+10 09	01 46	03 09	3 24 W	+9 56	"	[illegible]
44327	HD 72357	08 27 2	+10 24	03 11	04 07	4 25 W	+10 10	"	[illegible]
44328	HD 72547	11 15.2	+17 52	04 26	06 22	3 52 W	+17 25	"	[illegible]
44329	HD 100[illegible]	15 38.6	+26 37	06 30	06 35	~~5 18 E~~ *		"	[illegible]
44330	HD 161096	17 38.5	+4 37	06 41	06 44	2 - E		"	[illegible]
	No Auto-[illegible]								

Spectr. Temp. +22°F ..... Dome Temp./Hum. 15°F / 85% Transparency Conditions ..... Clearing from SE ?...

Focus ....5.13.....

Spectr. Temp. +17°F ..... Dome Temp./Hum. 10° / 93%

54

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/34	3-5'	6.36	O 9716	RC	G12/12	150/15	IIa-E	B	CHO Hα		vs/sm
						"	IIa0-E				
40/16	4"	2.15	KO II	RC	G8/12	150/15	"	B	stellar		vs/sm.
				"	"	150/10	IIa0	B	T-1.20 Se 513	vs/	
		6.36	G5 Ib	"	"	150/15	IIa-E	B	CHO Hα		fine
400/84	3-5"	6.36	M0p	"	G8/.10	150/3	"	A	Sp Hα - Ly	Some C'ou/ Some Fe ... Eqw only 400x 9	50/51 fine
400/84	"	6.2	A0V	"	"	"	"	B	Sp Hα - Ly		fine
1400/95	"	6.2	A0	"	"	"	"	A	Ly Hα		fine
400/12	"	2.15	[illegible]	"	"	150/5	"	B	[illegible]		vs/sm
400/20	"	3.93	K0 III	"	"	"	"	A	stellar		fine

55 453 1092

Date 7-8 Feb. Dunlap Observers Klemola/Imm

7" 68° Emulsion Batches: IIa-O-E 03119 IIa-O-E 03119

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44331	HD 29398	03H 47M 8	+31° 35'	19 07	18 10	00 51E	+31° 52'	F/ND	9-1
44332	HD 30614	04H 44M.1	+66° 10'	18 18	18 29	01 37E	+66° 12	F/ND	9-9
44333 ✓	HD 12993	02H 02M.1	+57° 27'	18 39	21 23	04 07W	+57 38	F/ND	5-5
44333T	Spot Calib	for 44331	-38		15 min 15V	D4 3900	D3 4300 D2 [illegible]		
44334	HD 46966	06H 31M 1	+06° 10'	22 37	23 33	01 48W	F		
44335	HD 47432	06 33.5	+01 42	23 37	00 20	02 39'W	+ 1 42	F/ND	6-6
44336	HD 72208	08 26.5	+10 09	00 31	01 21	01 43W	+ 9 58	"	6-6
44337	HD 72359	08 27.2	+10 24	01 24	02 11	02 32W	+10 12	"	8-7
44338	HD 88547	11 15.2	+17 52	02 17	03 23	00 56W	+17 31	"	8-7
44339	HD 140436	15 38.6	+26 37	03 30	03 38	02 12E	+26 29	"	7-7
44340	HD 117555	13 26.1	+27 44	04 02	06 35	02 0W	+27 24	"	5-5-5
44340T	Spot Calib	for 44339	-41		15 min 15V	D4 3700	D3 4300	D2 4810	
44341	HD 146051	16 09.1	-3 26	06 40	06 43	00 36E		F/ND	7-7
44341F	Focus Test					"	"	F/—	7-7

Spectr. Temp. +25°F ..... Dome Temp./Hum. +22°F/+83% Transparency Conditions .....

Focus ....511.....

Spectr. Temp. +17°F ..... Dome Temp./Hum. 19°F/+92%

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Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
90/15	2-3	2.96	B III b	BC	G12/1.68	150/1.0	IIa-0E	A	CNO Std		fine
40/18	2"	1.32	09.5 Ia	BC	G12/1.68	150/1.0	IIa-0E	B	CNO Std		fine
800/240	2	9.20	O6.5 V	BC	G12/1.68	250/5	IIa-0E	A	CNO-Blu	SIT2-	Fair
							103-0E		had to cut = 1/8" off 5" long th 3940 spectrum		
400/100	3"	5.80	O8 V	BC	G12/1.68	150/1.5	IIa-0E	B	CNO Blu		fine
400/100	4.5"	5.26	B7 Ib	BC	G12/1.68	150/1.5	IIa-0E	A	CNO Blu	Set 512	fair
400/100	3	6.53	A0p	"	G12/1.68	150/1.5	"	B	Std Lg	T=20° Set 511 SW star	fair
400/100	2-10"	6.3	A0p	"	"	"	"	A	"	NE star	fair
400/100	2-3"	6.8	A0	"	"	"	"	B	"		fair
400/18	4-5"	3.81	A0 IV	"	"	100/1.5	IIaO-E	A	Ast Std RM	Lots of D 38 Y60 bad, ins wide slit	fair
400/145	4"	8.7-8.83	gGe	"	G12/1.68	250/5	"	A	Std Blu	Set 513 T+1.9°	guiding unsure
							"				
40/17	4"	4.3	M1 III	BC	G12/1.68	250/5	"	B	Std Vis		fine
				"	"	250/10	IIaO	A	Set	No Luck	

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8m 68s Emulsion Batches: II-a-e 07419 - 07020 15 89

Date 8/9 Feb 80 Observers Wlk./Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44342	HD47839	6h 35.5	+9° 59.1	19h 08	19h 13	2 32E		FeNet	333
44343A		4h 40	+40°	19h 24	19h 37		+39 55		5 5
44343	HD 29766	4 37.3	+40 36	19h 43	19h 54	0h 07 W	+40		3-3
44344	12 AUR BD+46 989 HD37988	5h 09.0	+46° 19	20h 00	20 19	0 0	+46 28	"	3-3
44345	HD 36012	5h 23.6	+2° 05	20 31	21h 11m	0 40W	+		
44345T	Spot Chk	6. 4 34 2	-51		15 m.	0 15	DA 03 39		
44346	HD 26420	4h 5.7	+41° 52	21h 21m	22 47	0 2W	+		3-3
44347	HD 81357	9h 20.0	50° 35	22 57	00 30	0 0	+	"	
44348	HD 65583	7 54.3	+27 31	0 38	01 18	2 15W	+27 19	"	22-3
44349	HD 94118	10 46.7	+45 20	01 28	3h 26	1h 31 W	+	"	8 8
44350	HD 107346	12h 15m.4	-21° 39'	3h 42m	4 39	1 17W	-21 17	"	4-4
44351	HD 124897	14 11.1	+19 42	04 46	4 47	0 31 E		"	6-6

Spectr. Temp. +22 °F ..... Dome Temp./Hum. +17 / 90% ..... Transparency Conditions ..... very .....

Focus 516 (G43) .....

Spectr. Temp. ..... Dome Temp./Hum. 40 / 45% .....

58

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/48	2"	4.6	of	BC	G43/.5	250μ	IIaO-E	A	Wh.	comp bad?	sl str.
90/7				BC	G43/.5	250μ	"	B		kept saying wrong / discard if wrong ± ½' =	occ. wk
400/45	2"	6.1	B5	BC	G43/.5	250/.5	"	A	Wh.		v sl str.
400/47	2"	7.5	B9	BC	G43/.5	250/.5	"	B	"		v sl str
400/39	2"	8.3	B5	LC	"	"	"	A	"		uneven guiding
							"				
400/41	4-2"	7.7	A5	BC	G43/.5	250/.5	"	B			fine
400/40	3-4"	7.8	A	"	"	"	"	A	"	[illegible] = 37	fine
400/54	4"	7.9	G7	"	"	"	"	B	[illegible]	dust on slit?	fine
800/160	2"	7.13	A2	"	G8/.025	150/.3	"	A	Lyr 3	[illegible] T=15° = 1511	
800/20	3"	5.3	B5 nc	"	G12/.68	250/.3	"	B	Wh	[illegible] T=19 = 1513	v wk
40/17			A2 p	"	"	250/.5	"	A	[illegible]	[illegible] Eng lacks	some stellar comp.

59

Date ....9-10 Feb (30) Observers Watson-Ira

Emulsion Batches:
...Ilford 7119-0020 20
.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44352	HD 71153	8 20.7	+24 52	23:32	02 28	3 03W	+24 40	Fe/MD	6-6
44353	HD 71152	"	"	02 29	03 47	4 22W	+	Fe/MD	6-6
44353T	Spot Calib for 44352-59			15min @ 15V		D4 3490	D3 4330	D3	
44354	HD 112033	12 49.9	+21 48	04 04	04 24	0 32W	+21 28	Fe/MD	6-6
44355	HD 124674	14 09.9	+52 16	04 34	05 42	0 31 W	+	"	6-6
44356	HD 124675	"	"	05 44	05 50	0 39 W	+	"	6-6
44357	HD 136202	15 14.2	+2 09	05 59	06 21	0003W	+01 54	"	6-6
44358	HD147547	16 17.5	+19 23	06 27	06 31	01 11 E		"	9-9
44359	HD161096	17 38.5	+4 37	06 37	06 41	02:00 E		"	9-

Spectr. Temp. +21°F Dome Temp./Hum +17 / 99% Transparency Conditions Average Cloudy

Focus 513 60

Spectr. Temp. +17°F Dome Temp./Hum +10 / 96%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/215	2"	800	F6	BC	G2/68	150/5	IIaO-e	A	Wide prog		fine
400/80	3"	7.18	A3	"	"	"	"	B	"	cloud	fine
							"				
400/145	3.5"	5.86	K0	BC	G2/68	150/5	"	A	Wide Prog	T=+19°F	Fine
400/125	4"	6.61	K0	"	"	"	"	B	"		Fine
400/90		4.60	A8	"	"	"	"	A	"		Fine
400/125	4"	5.6	F8III	"	"	"	"	B	"		Fine
40/10		40	A9III	"	"	"	"	A	"		Fine
40/16		3.93	K0III	"	"	"	"	B	shove		Fine

61

$7^{3/4}$ hr 69°

Date Thurs Fri Feb 14-15 1960 Observers Hyd - R

Emulsion Batches:
Tao-E-07119-08020
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44360F	focus test							Fe/ND	10-10
44360	K Cet HD 20630	3h 14.1	+3°00	18:20	18:49	0h 50 W	+03°18'	Fe ND	7-7-7
44361	HD 30495/58 Eri	4 43.1	-17°07	19:07	20:23	0h 57 W	-16°55	Fe ND	7-7-7
44362	HD 39587	5h 48.4	+20°15	20:30	20:50		+20°20	Fe ND	7-7-7
44362T ✓	spectral fn plate	44360-			15 min @ 15 Volts		D4 D3 D2 3500 4300 4800		
44363	ε Lep HD 36079	5 24.0	-20°50	20:55	21:07	1h 00 W	-20°43	Fe/ND	7-7-7
44364	UY Aur HD 38858	5h 43.6	-4°07	21:11	23:00	2 30 W	-4°02	Fe/ND	7-7-7
44365	HD 76151	08 49.4	-05° 04	23:09	00:15	00h 36m W	-05°20'	Fe/ND	7-14

Spectr. Temp. 32°F Dome Temp./Hum. -04°C 65% Transparency Conditions scattered clouds

Focus 509

62

Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						B.C.	G12/.680	120/1.0	IIa-E	B		32°F 509	ok
	77	400/114	2-3"	5.5	G5	BC	G12/.680	120/.5	IIaO	A	Solar Type		sl. str.
	77	400/130	"	6.15	G0	BC	"	"	"	B			vsl str.
	77	400/112	"	5.0	G0	BC				A			sl. str.
									IIa-E				
	77	400/114	"	363	G5 III	BC	G12/.650	120/.5	IIa-E	B			fine
	77	400/120	"	6.6	G4	CC	G12/.650	120/.5	IIaO	A			fine
	77	400/35		6.7	G3	"	"	"	"	B	low-Sp. ice	26°F 511 grating longer + thin clouds	vsl wk

#1 63

73^m 69° Emulsion Batches:
Tmx: E.P. 211.9.-14020....
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Date Sat-Sun Feb 16-17 1980 Observers ....Wda-Bi.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44366F	focus test							Fe/—	3-5
44366	HD 29866	4h 37.3m 35 ×	40° 36' 37 ×	18h 39m	18h 58m	00h 17m E	+40° 42	Fe/ND	4-4
44367	HD 26398	4h 5m.4	16° 22' 54.0 ×	19h 03	19h 48	1h 05 W	+16° 37	Fe/ND	4-4
44368	HD 36012	5h 23m.6 ✓	2° 5'.3 ✓	19h 54	20h 49	0h 50 W	+02° 13	Fe/ND	4-4
44369	HD 33988	5h 09.0m ✓	46° 19' ✓	21h 03	21 35	1h 40 W	+46° 25	Fe/ND	4-4
44369T ✓	spectral tr plates	44366 - 44378			15 min @ 15 Volts		D4 3900 D3 4300 D2 4900		
44370	HD 47839	6h 35.5 ✓	+9° 59'.3 ✓	21 59	22h 03	0 52 W	+09° 55	Fe/ND	4-4
44371	HD 65583	7h 54.3 ✓	29° 31 ✓	22 08	23h 05	0 34 W	+29° 20	Fe/ND	4-4
44372	HD 69028	8h 10m ✓	35° 52' ✓	23h 14m	0h 48	2h 01 W	+35° 38	Fe/ND	4-4
44373	HD 93521	10h 42.7m ✓	38° 6' ✓	0h 57m	1h 32	0h 14	37° 44'	Fe/ND	4-4
44373F	focus test							Fe/—	5-5
44374	HD 99966	11h 25m.0 ✓	49° 29' ✓	1h 47m	2h 42	0h 40 W	+49° 05	Fe/ND	4-4
44375	HD 107301	12h 15m.4 ✓	-21° 39' ✓	2h 57	3h 14	0 24 W	-22° 00	Fe/ND	4-4
44376	HD 114376	13h 5.1	39° 4'	3h 43m	3h 53m	0 13 W	38° 40'	Fe/ND	4-4
44377	HD 100972	11 39.2	45° 17	4h 01m	4h 27	2h 20 W	+44° 53	Fe/ND	4-4

Spectr. Temp. 26°F Dome Temp./Hum. -3°C 73% Transparency Conditions clouds in and off second half

Focus 515

Spectr. Temp. ..... Dome Temp./Hum. .....

64

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	G43/.5	150/1.0	IIaO-E	B		26°F 515	vs/blue
400/40	3-4"	6.1	B5		G43/.5	150/.5	IIaO-E	A	wh		sl str
400/40		7.0	B	"	"	"	"	B	wh		v sl str
800/80		8.3	B5		"	"	"	A	wh		sl str.
800/80		7.5	B9	"	"	"	"	B	wh	24°F 516	sl str.
							IIaO-E	A			
400/40		4.6	Of	B.C.	G43/.5	150/.5	IIaO-E	A	wh		strong
800/100		7.9	S7			150/.5		B	STD Vel.		v s/ str
800/80	5-6	7.7	B9	B.C.	G43/.5	150/.5	IIaO-E	A	wh	20°F 517	v s/ str.
800/80		6.9	B3		G43/.5	150/.5	IIaO-E	B	wh		strong
						150/1.0	"	A		16°F 517	
800/80	3-4	7.0	B9	B.C.	G43/.5	150/.5	"	B	wh	BROKEN IN PIECES	
400/40	2-3"	5.3	B8me		"	"	"	A	wh		v s/ str.
800/80	"	6.2	B9		"	150/.5		B	wh		sl str.
800/80	"	6.6	B9	B.C	G43/.5	150/.5	IIaO-E	A	wh	14°F 518	Fair

HD
65 Con't Feb 16-17

Date ... Feb. 17. 1980 ... Observers ... Wh - Ri .....

Emulsion Batches:
Tech Pan 2415 07119-17020 ....
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44378	HD 123782	14h 04.6	49° 56'	4h 32	4h 48m	0h 10 w	49° 35	Fe/ND	4-4
44379	HD 151287	16h 41m.4	46° 26'	4h 58m	6h 31m	0 44 E		Fe/ND	4-
44379T ✓	spectral type plate	44379			15 min E	15 Volts	D4 3500 D3 4300 D2 4810		
44379F	focus test							Fe/—	5-5
				M'n	Feb 18	1980	Ri		
44379T1	obj test	out of date						Fe/—	15
44379T2	obj test	" "						Fe/—	15
44379T3	"	"						"	"
44379T4	"	"						Fe/—	"
44379T5	"	"						"	"
44379T6	"	"						"	"
44379T7	focus test							Fe/—	15-15

Spectr. Temp. 14°F ..... Dome Temp./Hum. ..... Transparency Conditions ... Very Good .....

Focus ..... 5.8 .....

Spectr. Temp. ..... Dome Temp./Hum. -14C / 98% 66

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/83		6.8	M2	BC	G+3/.5	150/.5	IIaO-E	B	STD Vel-		fine
STD/ 65	2.3	8.0	B9		"	"	IIaO-E*	A	wh		fine
							IIaO-E*				
						150/.5	IIaO-E*	B		13°F 5/18	sl. blue
									Obsy water	went off halfway through	
									washing of	plates — also	
									with rust &	mud	
				B.C	G12/.68	250	IIIa J-F	A			
				B.C	"	250	"	B			
				"	"	150	"	A			
						120		B			
						70		A			
						50		B			
				"		120/1	"	B		2.5°F 5/2	

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$8^m 68^s$ Emulsion Batches: Tao-E0711-17020

Date FEB 18/19 MON JUGS. Observers Bat Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44380	HD 29139 (2 Tau)	04 30.2	+16 18	19 04	19 06	[illegible]		FG/ND	6-6-6
44381	HD 34547	05 13.2	+13 29	19 11	21:14	01 32W	+13° 35'	"	-6-
44382	HD 63887	07 46.1	+71° 57	21:23	23:53	01 35W	+71° 46	FG/ND	6-6-
44382T ✓	spot cal for plates	44380-			15min @ 15 Volts	D1 3900	D3 4300	D2 4810	
44382F	FOCUS TEST							FE/_	5-5

Spectr. Temp. ..24°F..... Dome Temp./Hum. ..... Transparency Conditions .THIN...CLOUD & Gusty.....

Focus .....512.....

Spectr. Temp. ..24°F..... Dome Temp./Hum. 22°F / 86% 68

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/19		2.37	K5 III	BC	G12/.68	120/.5	IIaO E	A	STD VEL		Fine
3.00/180	1-2	7.5	B9				"	B	Ap MR		Fine
300/158		7.52	A0p	B.C.	G12/.68	120/.5	IIaO-E	A	Ap MR	CLOUD	Fine
							IIaO-E				
						120/1	IIaO-E	B		240F 512	

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Date Feb. 27-28/83 Wed/Thurs Observers ...T./...Ly.-T.n.....

Emulsion Batches:
..II.a-e. 07119-18020
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44383	HD72359	08 27.2	+10 24	01 14	2 36	4 18 W	+10 09	Fe/ND	7-7
						D4	D3	D2	
44383T	Spot Calib for 44383-86			15 min @ 15V		3900	4300		
44384	HD98547	11 15.2	+17 52	02 44	5 18	4 11 W		Fe/ND	7-7
44385	HD136688	19 40.7	+29 01	05 25	6 23	3 08 E		"	5-5
44386	HD161096	17 38.5	+4 37	06 29	6 39	E		"	7-7
44386F	Focus Test							F	

Spectr. Temp. 22°F ..... Dome Temp./Hum. +10°F / H=90% Transparency Conditions Light 70

Focus 510 .....

Spectr. Temp. +12°F ..... Dome Temp./Hum. +11°F / H=90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/53	4-5	6.2	A0 I	BC	GE/-.025	150/.3	IIaDe	A	Sp Bin-Ly	12 49 / 3 31	Focus 7
							IIaO-e				
900/55	6"	6.87	A0	BC	G8/-.025	150/.3	"	B	SP Ly	cloud T=d 13°F Sl off 4 Fixes	Fixes
600/55	4"	6.8-7.6	F0-G1	BC	G12/.68	120/3	"	A	Cafe Evans	Fset 515½	Poor
40/11	4"	3.9	K2 III	BC	"	"	"	B	Std Vel.		Fine
				"	"	150/10	IIaO	A		T=12+ °F V, VS	

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Date Feb. 28/29 Observers Gu-TN/Ka-Tr

Emulsion Batches:
IIIa-Nh (1:13.3 2,1)
H&D 07119-18020

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44387F	Focus Test								
44387	HD 40183	05 52.2	+44 56	18:43	19:33	00 05E	+44 57		
44388	HD 26630	04 07.5	+43 09	19:46	22:42	01 47W	+43 21		
44388T	spot calibn for 44387-90			15 min	@ 7½ V	D3 7080	D3 7680	D3 S4/61	
44389	HD 48329	06 37.6	+25 14	22:49	23:34	03 07W	+25 11		
44390	HD 48329	06 37.6	+25 14	23:36	00:33	04 07W	+25 11		
44391	HD 62509 = β Gem	07 39.2	+28 16	00:43	00 45	03 17W		Fe/ND	8-8
44392	HD 89449 = ε Leo	10 14.3	+24 14	00 54	01 01	01 33 W	+23°57		8-8
44393	HD 89449 = 40 Leo	10 14.3	+19 59	01 08	01 23	01 W			
44393T	spot calib for 44391-96			15 min @ 45V					
44394	HD 88021/2	10h 03.8	+20° 49	01 21	03h 19	3h 28 W	20° 29	Fe/ND	6-6
44395	HD 94148	10h 46.7	+16° 20	03 25	4h 37	4h 04 W	45° 55	Fe/ND	6-6
	HD 116658 = α Vir	13h 40.8	+10° 01	4h 44	6h 20	3h 07 E	9° 16	Fe/ND	6-6
44396F	Focus Test							Fe/—	6-6

Spectr. Temp. 114°F Dome Temp./Hum +5°F/69% Transparency Conditions ... sl. Hazy

Focus ... 1515

Spectr. Temp. −2°F Dome Temp./Hum. −11°F/80% very cold.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G24/1.9	150/110	IIaO	A?		only a few lines showed	
110/120	4-6	1.86	KoI	BC	G24/1.9	150/1.5	III-Nh	A	IK CEPH		v wk
40/110	"	4.12	G II	"	"	"	"	B	"		wk
											weak
40/100	"	2.99	G8Lb	"	"	"	"	A	IR Ceph	Focus 517 T= 7°F	wk
110/130	"	"	"	"	"	"	"	B	"	≈ 1/2 comp. exposure	wk
40/14		2.15	KoIII	BC	G8/48	150/110	IIaO-e	A	std Vgl		sl str
45/12	"	5.8	GoIII	"	G12/48	150/15	"	B	Cyg/Eq		comp. sl. str
40/12		5.3	F5V	"	"	"	"	A	"		v sl str
							"			one edge light streak	vsl str
40/		7.20	G5-K0	BC	G12/48	75/5	"	B	VB Blu		sl str.
120/39	7"	3.98	F2	"	"	150/15	"	A	SR Ly	scene too faint Focus 530 T = 11°F	v sl str
40/10		6.3-7.7	F8-G1	"	"	150/15	"	B	Cyg/Equ		fine
				"	"	75/10	"	A		set 520 T −2°F	fine

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$8^m 68^s$

Emulsion Batches: Ilford 0719 - 18020

Date Feb 29/Mar 1/80 Observers Tm - Tor / Tm - Tg

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44397F	Focus Test							Fe/—	5-5
44397	HD 29139	04 30.2	+16 18	18 35	18 38	0 32 W		Fe/—	
44398	HD 27383	04 14.2	+16 18	18 51	20 13	2 14 W		Fe/ND	6-66
44399	HD 27989	04 20.0	+18 39	20 28	22 26	4 20 W		Fe/ND	6-66
44399T	Spot Calib for 44397–44399				15 min @ 15V	D4 3400	D3 4300	D2 4810	
44400	HD 30869	04 46.2	+13 29	22 30	23 09	4 37 W		Fe/ND	6-66
44401	HD 44172	06 15.3	+14 45	23 14	00 35	4 35 W		"	6-66
44402	HD 111456	12 44.3	+60 52	00 43	01 03	1 35 E		Fe/ND	6-66
44403	HD 115043A	13 09.5	+57 14	01 13	01 58	0 55 E		"	6-66
44404	HD 124897	14 11.1	+19 42	02 27	02 28	1 27 E	+19 22	Fe/ND	9-9
44404F	Focus Test					"	+19 22	Fe/—	6-6

Spectr. Temp. +5°F ..... Dome Temp./Hum. +1°F/69% Transparency Conditions . sl. hazy .....

Focus ..... 518 ..... -519 ...

Spectr. Temp. +2°F ..... Dome Temp./Hum. -2°F/82%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G1 #2	150/1.0	IIaO	A			v sl red
40/12		2.39	K5 III	"	"	150/1.5	IIaO-e	B	Std. Vel.		fine
400/75	4"	7.44	F8 V	"	"	150/1.3	IIaO-e	B	Tnr-Hyad. Bin.		sl str
800/150	5-8"	8.21	G6 V	"	"	"	"	A	Tnr-Hyad. Bin		v sl str
							"				
800/107	5"	6.77	F7 V	BC	G2 #2	"	"	B	Tnr-Hyad. Bin		fine
800/132	8"	7.17	B5	BC	"	150/1.5	"	A	SB Lib		fine
400/77	3-4"	6.31	F7 V	BC	"	150/1.3	"	B	Tnr - UMa Clust		sl str.
400/75	2-4	7.0	G1 V	"	"	"	"	A	"		sl str.
40/13		1.29	K2 III	"	"	150/1.5	"	A	Std. Vel.		fine
				"	"	150/1.0	"	A		Set 519 T: +2°F	o/c

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8" 68° Emulsion Batches: IIaO-e 0719-19020

Date Mar. 1-2, 80 Observers Tor-Tu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44405F	Focus Test							Fe/—	6-6
44405	HD 29139	04 30.2	+16 18	18 36	18 37	0 25 W		Fe/ND	7-9
44406	HD 27383	04 14.2	+16 18	18 43	19 36	1 40 W		Fe/ND	6-6-6
44406T	Spot Cals for 44405 −14.			15 min @ 15		V D4 3490	D3 4300	D- -1.2	
44407	HD 28226	04 22.1	+21 24	19 42	20 07	2 04 W		Fe/ND	8-8-8
44408	HD 28363	04 23.3	+15 57	20 10	21 24	3 20 W		Fe/ND	8-8-8
44409	HD 30869	04 46.2	+13 29	21 28	22 24	3 56 W		"	8-8-8
44410	HD 109011	12 26.5	+55 40	22 36	01 32	0 34 E		"	6-6-6
44411	HD 127617	14 27.3	+19 13	01 40	04 14	0 02 W		"	6-6
44412	HD 124897	14 11.1	+19 42	04 16	04 17	0 26 W		[illegible]	[illegible]
44413	HD 137909	15 23.7	+29 27	04 26	04 33	0 31 E		"	10-10
44414	HD 186688	19 48.8	+29 01	04 40	06 04	3 19 E		"	6-6-6
44414F	Focus Test					0	+13°	Fe/—	6-6

Spectr. Temp. +8° F Dome Temp./Hum. +1°F / 69% Transparency Conditions Fine

Focus 517

Spectr. Temp. +1° Dome Temp./Hum. -6°F / 96%

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						BC	G12/68	170/110	IIaO	A		cant vs/Red in K and early	
		40/115	3	2.39	K5 III	BC	"	150/5	IIa-0e	B	Std. Vel		Fine
		400/75	2-3	7.44	F8 V	"	"	150/3	"	A	Tnr Hyad Bin		"
									"			PDS curve: good	
		400/110	3"	5.99	Am	BC	G12/68	150/3	"	B	Tnr Hyad Bin	Set 515 T=+8°F	Fine
		400/130	3"	7.12	F7 V	"	"	"	"	A	Tnr Hyad Bin		Fine
		400/110	2-3	6.77	F7 V	"	"	"	"	B	"		
		800/200	3-?	9.06	K2 V	"	G12/68	"	"	A	Tnr UMa Clust.	T=+5°F Set 517.5	Fine
		800/140	2	8.67	B5 ne	"	"	"	"	B	Tnr/Ly Runaway	T=+2°F Set 519 ?	
		4/16		1.29	K2 III	"	"	70/05	"	H	shred		Fine slightly
		40/12	2"	3.93	F0p	"	"	"	"	B	Lt pump		sl str
		400/130	3"	6.8-7.66	F0-6I	"	"	150/5	"	A	Ceph Km		Fine
						"	"	150/10	IIaO	B		Set 519	sl red
									* T1 H probably =855			by mistake	

Date 2/3 MARCH 1980 SUMMON Observers Blv. Tu. /. Tu.

8m 68° Emulsion Batches:
IIa-E 07119 – 29020
only 2 hrs exposure → IIa-E* 07119 – 29030
** Evacuated in vacuo

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44415F	FOCUS					0	+30°		
44415	HD 20614	04 44.1	+66 10	18 42	18 48	0 23W		Fe	9-9
44416	HD 15690	02 26.3	+57 05	19 01	20 19	W	+57°27'		
44416T	Spot Calib for 44415		-16	15 min @ 15V		DA 3900	D3 4300		
44417	HD 36436	05 26.9	-00 22	20 27	20 28	1 24W			9-9
44418	HD 37043	05 30.5	-05 59	20 33	20 36	01 28W	-5°52'		
44419	HD 37213	05 31.1	-01 16	20 40	20 41	01 33W	-01° 11'		9-9
44420	HD 38771	05 43.0	-09 42	20 45	20 47	01 28W	-09 37		9-9
44421	HD 37742	05 35.7	-02 00	20 52	20 54	01 41W	-01 53		9-9
44421T	Spot Calib for 44417-21			15 min @ 15V		D4 3900	D3 4300	D3 4810	
44422	HD 86210	09h 52m.2	+25°05'	21 02	00 29	01 00W	+24 47	Fe/ND	6-6 6
44423	HD 86857	09 56.2	+24 28	00 32	02 01	02 37W	+24 07	"	6-6
44424	HD 86168	09 51.7	+25 16	02 04	04 35	05 06W	+24 57	"	6-6-6
44425	HD 124897	14 11.1	+19 47	04 39	04 40	00 55W		"	9-9
44426	HD 186626	19 40.8	+29 01	04 49	05 40	03 36E	+29 16	"	6-6-6

Spectr. Temp. 14°F ..... Dome Temp./Hum. 12°F / 62% out 89% inside Transparency Conditions .....

Focus 515 .....

Spectr. Temp. +11°F ..... Dome Temp./Hum. 15°F / 96% Grating at 0.655 at the ~~4~~ 4 - 1 T

Tilt wing previous w ht?

Ice Patches on secondary mirror

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	612/1.68	150/10	IIa-O	A		515	F
40/15	2	4.32	O5 Ia	BC	612/1.68	150/10	"	B	CNO std		S/ str sng
300/260	2	8.66	B1.5 Ia	BC	612/1.68	150/10	IIa-O E	A	CNO std	v	S/ str
							IIa-O-E				
40/18	1-2"	1.99	O9.5 II	BC	612/1.68	150/10	IIa-O E*	B	CNO		sng S/ str
40/20	1-2	2.19	O9 III	BC	612/1.68	150/10	IIa-O E*	A	CNO std		S/ str
40/18	1-2	1.51	B0 Ia	BC	612/1.68	150/10	IIa-O E*	B	CNO	v S/	S/ str
40/19	1-2	1.86	B0.7 Ia	BC	612/1.68	150/10	IIa-O E*	A	CNO std		S/ str sng
40/21	1-2	1.99	O9.5 Ib	BC	612/1.68	150/10	IIa-O E*	B	CNO		S/ str sng
							IIaO-E				
200/200	1-2"	9.5	K0	BC	612/1.68	150/3	IIaO-E	A	Sp B1a-B1b		S/ wk
400/107	1-2"	9.1?	K0e	"	"	"	"	B	"	Seems brighter than 9.1 probably a binary /	wk
100/66	2"	9.1	K0	"	"	"	"	A	"		S/ wk
40/15	2	1.24	K3 II p	"	"	K0/5	IIaO-E*	B	std Ib/		S/ str
400/130	2-4"	6.1-7.0	F2 Ib	"	"	"	IIaO-E	A	Cyg-Per		F

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Date Mar 5/6 Wed/Thurs. Observers Rm-Ri

Emulsion Batches:
103a-E 0719-02030
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44427	HD 86688 - SUCrg	19h 40.8	+29° 01	04h 07	6:05	2h 59E	+29° 15	Fe/ND	6-6
4442771	spot cal for plate	44427-			15 min @ 15 Volts		D4 380	D3 4310	D2 4810
44427 T1	focus test							Fe/	6-6

Spectr. Temp. ..... Dome Temp./Hum. -07°C 85% Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. -09°C 85%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/ 1:4	3-4	6.8 7.66	FO G1	BC	G12/.68	150/1.3	IIAoE	A	Cepheids/Rm	30°F 510 Focus	V sl soft.
							IIaO-E				
						150/1	IIaO	B		+27°F 510	slight warm mean ok

80

8 1

Date Sat Sun Mar 8-9 Observers Tnt-R

8m 67° Emulsion Batches: IIaO-E 07119-02030

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44428F	focus test							Fe/-	6-6
44428	HD 62509	07 39.2	+28 16	22 15	22 16	2 23 W		Fe/ND	6-12
44429	HD 111456	12 44.3	+60 52	22 27	23. 29	2 28 E	+60°26'	Fe/ND	6-6-6
44430	HD 115043	13 09.5	+57°14	23: 35	00 58	1 24E	+56°53	Fe/ND	6-6-6
44431	HD 127617	14 27.3	+19 13	01 12	04 17	0 37 W	+18° 55	Fe/ND	6-6-6
44431F	spectral for plates 44428-37.					15mm @ 15 Volts			
44432	HD 186688	19 40.8	+29 01	04 28	06:05	2 47W	+29°15	Fe/ND	6-60
44432F	focus test							Fe/-	6-6

Please

Spectr. Temp. 33°F - 30°F - ..... Dome Temp./Hum. ..... Transparency Conditions . cirrus .....

Focus ..... 509 - 510 - .....

Spectr. Temp. ... 2.7 ..... Dome Temp./Hum. -06°C 98% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G12/.68	150/10	IIaO-E	B		33°F 509	Ok
40/15	5	2.15	KoIII	BC	G12/.68	150/.5	IIaO-E	A	Std. Vel	5/	5+
100/131	5	6.31	F7V	"	"	"	"	B	Thr-UMa.		Fine
100/ 75	5	7.42	G1I	"	"	150/.3	"	A	"		Fine
300/ 88	>5	8.67	B5ne	BC	"	"	"	B	Thr/Ly Runaway	300°F 510 clouds	Fine
							IIaO-E				
100/145		6.8 7.66	F0- G1	"	"	"	"	A	Ceph/Rm	clouds first half hour the good	Fine
						150/1.0	IIaO-E	B		27°F 510	ok Fine

83

Date Sun/Mon. Mar. 9/10, '80 Observers B.L. - R.

8m 67° Emulsion Batches: IIa-F 7119-7803 ... 19 210
5m 66° IIIa-J 12108-8901 ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp Mtr
44433F	Focus Test							Fe /-	6-6	
44433	HD 30614	04H 44M.1	+66° 10'	18:50	18:57	01 00W	+66° 22'	Fe/ND	9-1	4 1/5
44434	HD 36486	05 26.9	-00° 22'	19:02	19.05	00 28W	-00° 14'	Fe/ND	9-9	4 1/5
44435	HD 37043	05 30.5	-5° 59'	19:03	19:12	00 32W	-05° 52	Fe/ND	9-9	4 1/5
44436	HD 37128	05 31.1	-01° 16	19.15	19:19	00 39W	-01° 12	Fe/ND	9-9	4 1/5
44437	HD 37742	05 35.7	-02° 00'	19:21	19.25	00 40W	-01° 55	Fe/ND	9-9	4 1/5
44438	HD 38771	05 43.0	-09° 42	19.27	19:32	00 40W	-09° 36	Fe/ND	9-5	5
44439	HD 33328	05 04.4	-06° 53	19:40	20:34	02 20W	-08° 42	Fe/-	5-10	
44439T1	optical for plate 44437-38				15m @	04 5m 02 20W	D3 43W D2 48W			
44439T2	" " " 44439				15m @	D4 17.5W 39W	D4 15W 43W	D4 15W 48:0		

Spectr. Ter
Focus...
Spectr. Ter

Spectr. Temp. 31°F ..... Dome Temp./Hum. -02°C 80% Transparency Conditions ..Co. Hem..... 84

Focus ..510.....

Spectr. Temp. 32°F ..... Dome Temp./Hum. -4°C 90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
"				BC	G12/.68	150/1.0	IIa-O	B		31°F 510 cont vs/Hel	
90/15	2	9.32	09.5Ia	BC	G12/.68	150/1.0	IIa-OE	A	CNO Std		Fine
90/15	2	1.99	09 II	BC	G12/.68	150/1.0	IIa-OE	B	CNO		Fine
90/15	2	2.49	09 III	BC	G12/.68	150/1.0	IIa-OE	A	CNO Std		Fine
90/15	2	1.51	B0I4	BC	G12/.68	150/1.0	IIa-OE	B	CNO		Fine
90/15	2	1.59	09.7Ib	BC	G12/.68	150/1.0	IIa-O-E	A	CNO		sl. str.
90/15	2	1.86	B0.5I4	BC	G12/.68	150/1.0	IIa-E	B	CNO Std		sl str.
90/	2-3	4.07	B2IIe	BC	G12/.68	150/1.0	IIaJeb	B	Be - Bla	Cloud dirt & scratches v sl. wk	
							IIaS-E				
							IIaS-eb				

85

8" 67°

Emulsion Batches:
IIa-O-E 07119-08030

Date NOV-TUES. MAR 10-11 19[illegible] Observers ..But-Ri.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44440	HD 134305	15 04.0	+12° 52	00·44	01 44	-0225E	+12° 38	Fe/ND	6·12
44440F	Focus test							Fe/-	6-6
44440T	spectral			15 min @ 15V/h		3900	4300	D3 D2 4810	

Spectr. Temp. 37°F ..... Dome Temp./Hum. +.04°C..82% Transparency Conditions .....

Focus ..... 508 .....

Spectr. Temp. 35°F ..... Dome Temp./Hum. 5°C..78%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/44	5-00	7.24	A7p	B.C.	G12/.680	120/.5	IIa O-E	A	Ap-MR	CLOUD	ok
						120/1.0	IIa O	B		508 37°F	Streak

87

Emulsion Batches:
IIaO-E 07119-08030 19 216

Date TUES. WED. MAR 11/12 80 Observers B. Ed. Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~44441F~~	~~Focus test~~							Fef—	6-6
44441	HD137182	15 19.5	+10 54	02:36	05 20	01 00W	+10°43	FE/ND4	6-6-6
44441T ✓	optical for plates	44441 - 42.			.15min @ 15 Volts		D4 3900	D3 4300	D2 4810
44442	HD 146051	16 09.1	-03 26	05 27	0535	00 27W	-0335	FE/ND4	6-12
44442F	FOCUS TEST							FE—	6-6

Spectr. Temp. ...25°F..... Dome Temp./Hum. -10°C ...83% Transparency Conditions 88

Focus .....511.....

Spectr. Temp. ..18°F..... Dome Temp./Hum. -12°C ...71%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						120/1.0	IIIa-E	B		forgot to remove the 25°F grating 511	
300/120		7.19	AO	BC	G12/.66	120/.5	IIIa-E	A	Am MR		Exc
							IIaO-E				
40/20		4.9	MIE	BC	G12/.66	120/.5	IIaO-E	B	std vel	18°F 513	
								A		cont. w/ std	

19 216

84

Emulsion Batches: IIa-e 07119 - 11030 20 206

Date Wed-Thurs. Mar 12/13/80 Observers Ly - Ta / Su - Ta

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
44443F	Focus Test							Fe/-	1-6	
44443 ✓	HD 27383	04 14.2	+16 18	19:09	20 46	3 34W		/-	6-6-6	40
44443T	Spot Calib for 4444	3-51.			15m@	15V	D4 3400	D3 4300	D2 4800	
44444	HD 27389	04 20.0	+16 39	20 51	22 09	4 50W		/-	6-6	
44445	HD 27509	07 39.2	+ 16	22 19	22 22	1 45W		/-		
44446	HD 27517	11 15.2	+17 52	22 35	23 53	0 21E		Fe/-	6-6	
44447	HD 84441 = Leo	9h 7m.2	+24°14	00 02	00 08	1 30W	23° 37	Fe/-	7-9	
44448	HD 99449	10 14.3	+19 59	00 15	00 44	1 32W	+19 37	"	6-6-6	
44449	HD 99111	10h 46.7	+46°20	00 51	02 45	3 01W	+45 59	Fe/-	6-6-6	
44450	HD 101456	12h 04.3	+60°52	03 52	03 22	1 42W	+60 29	Fe/-	6-6	
44451	HD 186688 = 3 Cyg	19h 40.7	+29°01	03 31	05 56	2 40E	+29° 14	Fe/-	6-	
44451F	Focus Test							Fe/-	6-7	

Spectr. Temp. +23°F Dome Temp./Hum. 18F/60% Transparency Conditions . Clear . . . . . Hazy.

Focus 513

Spectr. Temp. +20°F Dome Temp./Hum. 15F/80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				72c	612/68	150/10	IIaE	B		Set 513. Cont'd	
400/500	2'	7.44	F8V	"	"	150/5	IIaD-E	A	Hyd & prog		
							"				
200/72	2-3	7.21	G6V	72c	G2/48	150/3	"	B	Hyades Prog		V.Sl. unk
40/20	3	2.15	K0III	"	"	150/5	"	A	Std Oak		
400/90	2	6.8	A0	"	"	150/10	"	B	Sylvia 1,	Sl cloud	
90/12	2	3.6	A0(Ca)	"	"	120/5	"	A	Cook/Evans	20°F	Fine
400/100	1-2	5.3	F5V	"	"	"	"	B	"		"
200/73	2"	7.13	K2	"	"	150/5	"	A	Sp Cen/Lg		
400/76	2"	6.31	[illegible]	"	"	150/5	"	B	Tau/Ursa		Fine
200/90	3-4	6.8	F8-G1	"	"	150/10	"	A	Cook/Evans	Lunar spectra, 20F	Sl unk
				"	"	150/5	"	A		star right	sm

07

Date 19 MAR 89 SAT Observers EW / TS

Emulsion Batches: 8m 68° 07HP 11F30 19 203

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44452F	Focus Test							F / -	07
44452 ✓	HD88021/2	10h 03m.8	+20° 49'	23 06	01 17	2 23W	+20° 38'	- / ND	6-6.4
44452T	Spot Calib for 44452-54				15 min @	15V	D4 39.00 D3 43.00	D2 49.0	
44453	HD 88547	11 15.2	+17 52	01 24	02 43	2 37W	+17 28	" ND	6-6.4
44454	HD 102742	13 58.6	+11 16	02 48	03 41	0 50W	+10 56	"	6-6.4

Spectr. Temp. 32° F ..... Dome Temp./Hum. 26°F/84% Transparency Conditions ..... Clear, but gusty by 2300

Focus 529 .....

Spectr. Temp. 28°F ..... Dome Temp./Hum. 27/92%

929-0307

92

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/60	150/10	IIIaJ	A		5321 32°F	
400/180	2-3	7.20	9654 A2	BC	G12/63	150/5	IIaD-E	B	VB-Blu	thin, some cloud	fair
							IIaD-E				
400/90	3"	6.87 mv	A0	BC	G12/68	150/5	"	A	SE Lg		fine
400/116	2"	6.21	G8V	"	"	"	"	B	Kk pr Sg	T=85° Sat 510 Cloud	V.S. str
							—	A			

93

Date 15/16 March/80 (SAT/SUN) Observers GL/TN

Emulsion Batches:
HIE
8" 68° HIE*

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44455F	Focus Test							No/—	30-30
44455 1	HD 67509	07 39.2	+28 16	19:06	19 22	01 04 E	+28 08		
44456 1	HD 52193	06 55.2	+20 43	19:30	21 28	01 44 W	+30 39		
44457T 1	Spec Calc for 44455-56			7½V	10m D4 7580	4m D4 -2464	4m D3 -2464		
44457 1	HD 40183	05 52.2	+44 56	21 38	22:01	03 17 W	+44 59		
44458 1	HD 40183	05 52.2	+4456	22:02	22 25	03 41 W	+44 59		
44459 2	HD 46329	06 37.8	+25 14	22:31	23.16	03 53 W	+25 14		
44459T 2	Spec Calc for 44457-			7½V	10m D4 7680	4m D4 -2464	4m D3 -2464		
44460 2	HD 3990	01 22.4	+73 46	23:31	00 04	9 25 W	+73 01		
44461 1	HD 5570	01 22.4	+58 46	00:06	00:43	10 04 W	+73 01		
44462 2	HD 4150	01 22.4	+58 46	00:48	01:20	10 40 W	+73 01		
44463 2	HD 213307	22 25.4	+57 54	01:33	05 47	05 20 E	+58 36		30

↑ development batch

Spectr. Temp. 29°F Dome Temp./Hum. 21°F / 60% Transparency Conditions Fine some cirrus

Focus 509

Spectr. Temp. 19°F Dome Temp./Hum. 14°F / 72%

94

Comparison Type/Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						RC	5-4.9	100	098-E	B		V filter	sl blue
		10/90	3?	2.15	KOI	"	"	100/5	HIE	A	H. vel	"	strong
		10/93	"	3.92	F:Io	"	"	"	"	B	IR Ceph	"	smudges fine
									"				
		10/90	3	1.86	A2I	"	"	"	HIE*	A	IR Ceph	"	fine
		10/100	4	"	"	"	"	"	"	B	IR Ceph	" bl lines?	fine
		10/90	"	2.99	G5Ib	"	v	v	"	A	IR Ceph	" T=27°F	strong
												Set SD T=27°F	
		10/93	"	2.0	F8Ib	"	"	"	"	B	IR Ceph	Focus v	sl str
		10/105	"	"	"	"	"	"	"	A	"	" v	sl str
		10/90	"	"	"	"	"	"	"	B		H [illegible]	fine
		10/100	"	2.96	F5Ib	"	"	"	"	A		[illegible]	exp fair flexure!

05 Finder Tour - N°3

Date 18/19 MAR ... Observers B. & T. ...

Emulsion Batches:
D.A.S. 6119-1100 19 218
Dado 07119-1100 19 227

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44464 ✓	HD 63788	07 46.1	+71 57	19 15	21 39	01 14 W	+71 46		6-6-6
44463	Spot Calib for 4464-65				15 min @ 15V				
44463 E	Focus Test ✓								6-6
44465	HD 73666	08 34.4	+20 20	22 15	00 11	03 03 W	+20 04		6-6-6
44466	HD 103578	11 50.5	+16 12	00 17	01 16	00 52 W	+15 48	"	6-6-6
44467	HD 141051 (Zone)	16 09.1	-03 26	01 25	01 36	02 54 E	-03 35	"	7-9
44468	HD 137182	15 19.5	+10 54	01 40	04 19	00 26 W	+10 42	"	6-6-6
44467 T	Spot Calib for 4466-67				15 min @ 15V				

Spectr. Temp. +24°F Dome Temp./Hum. 0°C/78% Transparency Conditions Fine, but cloudy toward 9h

Focus 548

Spectr. Temp. +27°F Dome Temp./Hum. -2°C/93%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/70	3-5"	7.52	Ap	BC	6.2/.61	120μ	IIaE	A	Ap MR	lousy focus plate reversed?	
							"				
				BC	60/68	120/10	IIaO	B	T=+24.5°F	504508	de
400/80	3"	6.52	A0 V	"	"	120μ5	IIaO-E	A	Ap MR	CLOUD	fine
400/80		5.57	A3 V	"	"	"	"	B	Amlg MR	CLOUD	
40/16	2	4.1	M1 III	"	"	"	IIaO-E*	A	std Vol		
40/61	2"	7.19	A0	"	"	"	"	B	Am MR	cloudy	fine
							"				

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Date 12/24 Mon/Tue/Wed/Thu/Fri/Sat/Sun Observers Gu.-Ri.-[illegible] (some data from 8th 70°)

Emulsion Batches: H.I.E* 17 226

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
14469	HD 62509	07 39.2	+28 16	20:32	20 40	0 44 W	+28 08	[illegible]	[illegible]
14470	HD 40183	05 52.2	+44 56	20 58	21:28	3:18W	+44 58	Ne-	[illegible]
14470'	Spot calib[illegible]	[illegible] 44469-70				7½ V	76 70 -[illegible]	[illegible]	[illegible]
14470F	focus test							[illegible]	[illegible]
14470P	"							[illegible]	[illegible]

17 226

Spectr. Temp. 32°F ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus ..... 502 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

98

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/E2	3"	1.16	K0 III	BC	1224/.7	150μ/1.5	HIE	B	IR Ceph	"V" filter	strong
11/E3	3"	1.26	A2V	BC	"	"	"	A	"	"	fine
				IC	G12	BS	IIaJ	A		504 ; 44°F	
				BC		BS	"	B			

Date 27/28 MAR 80 (THU/FRI) Observers TNR – RI

Emulsion Batches: IIaO-E 07119-2030

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
44471	HD 111456	12 44.3	+60 52	23 57	00 53	0 10 W	+60°26'	Fe/ND	6-6
44471F	Focus test							Fe/–	6-6
44472	~300 HD124897	14 11.1	+19° 42	01 00	01 02	1 06 E	+19° 19'	Fe/ND	6-12
44473	HD 127617	14 27.3	+19° 13	01 11	04 31	2 07 W	+18° 53	Fe/ND	6-66
44473T ✓	spectral for plates	44471–			15 sec @ 15 Volts	04 39m	03 43m	02 48m	

Spectr. Temp. ..44°F..... Dome Temp./Hum. ..... Transparency Conditions hazy with a few clouds..

Focus .....504.....

Spectr. Temp. ...40°F..... Dome Temp./Hum. 4.0.2°C...85% 100

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ND 6-6	400/126	3-4	6.31	F7 V	BC	G12/.68	150µ/1.5	IIaO-E	A	Tnr Prog.		vsl str
Fe/- 6-6					"	"	150/1.0	"	B			ok
Fe/ND 6-2	40/15		1.29	K2 III P B5	"	"	150/.5	"	B	Std Vel		vsl str.
Fe/ND 6-6	300/121	4	8.67	G-Vae	"	"	150/.3	"	A	Tnr/Ly Prog	clouds	flexure
								IIIaOE				

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Date 30-31 MAR 1980 Sun Mon Observers HK-RJ

5m 68° Emulsion Batches: IIIaJ eb-12018-19020
9m 68° IIaE 07119-28030

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
44474	β Gem HD 62509	07 39.2	+28° 16'	19:35	19:38	00h 11W	+28°06	Fc/—	6-6
44475	"	"	"	19:42	19:49	00 21W	"	"	6-6
44476	δ Gem HD 47105	06 31.9	+16° 29	19:52	20.02	01 41W	+16° 27	"	6-6
44477	"	"	"	20:03	20.32	02 12W	"	"	6-6
44478	HD 76151	08 49.4	−5° 04'	20:36	21:27	00 50W	−05 20'	Fc/ND	6-6
44478T1 ✓	spotted for plate	44474-77			15 min @	17.5U D4 3900	15U D4 4300	15U D4 4810	
44479	HD 99028	11 18.7	+11° 05'	21:33	21:51	01 13E	+10° 40'	Fc/ND	6-6
79F1	focus							Fc/—	6-6
79F2	focus							Fc/—	6-6

Spectr. Temp. 50°F Dome Temp./Hum. +05°C 30% Transparency Conditions scattered clouds

Focus 47°F

Spectr. Temp. Dome Temp./Hum.

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Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/60		2.15	K0 III	B.C.	G12/.68	BS	IIIa Je b	A	Std Vel	exp good	
40/60		"	"	"	"	120/.5	"	B	"		fine
20/52		1.9	A0 II	"	"	"	"	A	Asm/Sp. KK		strong
40/90		"	"	"	"	"	"	B	Asm-Sp/KK		strong
100/13		6.67	dG3	"	"	"	II a0	A	Asm-Sp/KC	clouds	V wk
							IIIa Je b				
60/16		9.03	F2 V	B.C.	B12/.68	120/.5	IIIa0-E	B	Asm-Sp/AK	even thicker clouds!	wk
				BC	"	120/1.0	I a0	A			V sl blue
				"	"	BS	II a0	B			fair

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Emulsion Batches: 8m 68 IIa-E 07119-28030

Date Tues. April 1 1980 (Mon. March 31) Observers R.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44480	HD 135679	15 11.3	+26° 01	01: 50	02: 58	00 05W	+25° 47	Fe/ND	6-6-6
44480T1V	spectral tri plate	44480-82			15 min @ 15 Volts	D4 3900	D3 4350	D2 4810	
44481	HD 137182	15 19.5	+10° 54	03:03	05: 07	02 05W	+10° 41	Fe/ND	6-6-
44482	HD 156014	17 10.1	+14 30'	05 11	05: 22	00 30W	+14 29	Fe/ND	6-6
44482F	focus test							Fe/-	6-6

Spectr. Temp. ....41°F..... Dome Temp./Hum. +22°C ..100% Transparency Conditions ....Good.....

Focus .....506.....

Spectr. Temp. ....40°F..... Dome Temp./Hum. +01°C ..100%

104

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
300/190	2-3	6.67	B9	B.C.	G12/.680	120/1.5	IIaO-E	A	Ap - MR		fine
							IIaO-E				
300/190	2-3	7.19	A0	B.C.	G12/.680	120/1.5	IIaO-E	B	Am - MR		fine
40/21		4.41	M5II	B.C.	G12/.680	120/1.5	IIaO-E	A	Std Vel		fine
				B.C.	G12/.680	120/1.0	IIaO	B			

195

8m 68°

Emulsion Batches: Hao: E. 07119 - 28030

Date Tues. Wed. April 1-2 1980 Observers ..... R. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44483F	focus test							Fe/—	6-6
44483	HD96003	10 59.3	+13° 12'	20:02	21.10	01 29E	+12° 49	Fe/ND	6-6
44483T ✓	spectral calib plate	44483			15 min	@ 15 Volts	D4 3500	D3 4300	Fe/ND 4 8100

Spectr. Temp. ...47°F..... Dome Temp./Hum. +05°C...80% Transparency Conditions ...hazy.....

Focus .....504.....

Spectr. Temp. ..... Dome Temp./Hum. .....

106

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G12/.68	120/1.0	IIaO	A			
2200/110	2-3	6.75	Ap	B.C.	G12/.68	120/1.5	IIaO-E	B	Ap-MR		
							IIaO-E				

107

Date Wed. Thurs. Apr. 2-3/80 Observers Ly.-Tu. / Ra.-Tu.

8m 6s
8m 6s

Emulsion Batches:
II a O-E 07119 – 03030 28 21
IIa-I-Eb 12018 – 19020 for 27 23
Focus: Fog test

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44484F	Focus					00 06E	+28		
44484F2	Focus					00 02E	+28		
44484	HD62509	07 39.2	+28 16	19:18	19.20	00 04W	+28	Fe/ND	9-9
44485	HD27383	04 14.2	+16 18	19.25	20 30	04 39W	+16 37	"	6-6
44485T	Spot Calc for 44484 – 93.				15 min @ 15V	D4 3720	D3 4720		
44486	HD72208	08 26.5	+10 09	20.39	22 22	02 19W	+9 52	Fe/ND	8-8
44487	HD98547	11 15.2	+17 52	22:39	00 21	01 30W	+17 24	Fe/ND	8-8
44488	HD84441: ε Leo	9h 40.2	+24° 19	00 25	00 33	03 17W	+33 52	Fe/ND	12-12
44489	HD 89449 • 40 Leo	10h 14.3	+19° 59	00 35	00 58	03 18W	+19 34	Fe/ND	6-6
44490	HD115043 79 Vir	13h 09.5	+5°7° 14	01 06	02 17	01 34W	+5°° 45	Fe/ND	6-6-6
44491	HD 136618 • 93 Lib	19 40.8	+29° 01	02 29	04 48	02 25E	+29° 10.5	"	6-6-6
44492	HD195295	20h 25.3	+30° 2	04 52	05 05	02 52E	+30° 17.7	Fe/ND	6-12
44493	HD187929: 7 Aql	19h 47.4	+00° 44.9	05h 10	05 21	02 00E	+00° 58	Fe/ND	9-9
44493F	Focus – (clear fog level too)							Fe/—	12-12

Spectr. Temp. 50°F ..... Dome Temp./Hum. 45°F/60% Transparency Conditions good ..... v.sl haze .....
gusty

Focus (503 - 505.5) 502

Spectr. Temp. 38°F ..... Dome Temp./Hum. 43°F/.....

198

Comparison Type/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						BC	G12/.68	150/1.0	IIaD	A		field lens out (see below)	
						"	"	"	"	A		field lens in (see below)	
		40/20		2.15	K0III	BC	G12/.68		IIaDe	A	Std Vel	(see below)	
		2100/50	3-7"	7.44	F8V	"	"	150/.3	"	B	Hyades - Tnr	sl uneven exp ctr slight "flexure" due to (see below)	
									"				
		400/154	3"	7.5	A0p	PC	G8/-.05	150/.5	"	A	Focus 501 T=48F SpBin - Ly	CHANGED GRATING TO G8 SPRING BRACKETS WERE NOT ON GRATING - FOUND ON WIRES AT BASE OF SPECTROGRAPH! G12 held in only by plunger	fine
		700/110	3-4	6.67	A0	"	G8/-.025	150/.5	"	B	Focus 502.5 T=43F SpBin - Ly		
		40/21		3.8	G0	"	"	150/.5	"	A	Cepk/Evlw		v sl str
		/41	4"	5.2	F5V	"	"	"	"	B	"		v sl str
		400/120	4?	7.42	G1V	"	G12/.68	150/.5	"	A	UMa/Tau	72°F flow 500.5	v sl str
		700/270	5"-2"	G0-7.7	F0-G1	"	"	150/.5	"	B	Cepk/Evlw		
		40/26	2"	4.93	F5IV	"	"	150/.5	"	A	Cepk/Evlw		sl str
		40/26	3"	4.3	F5IV-G0V	"	"	150/.5	"	A	Cepk/Evlw		sl str
						"	"	150/1.0	IIaDe	B		overdeveloped	ok

Emulsion Batches:
4m 70° .098-e ..... 20419 ..... 03300 21 185
.....
.....

Date .. Apl. 4/5-80 Observers ..... W.L.T. - T.n. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44494	HD 192163	$20^h 8.^m4$	+38° 3'	03 40	05 15	2 19 E		Nel — Fe/ND	10-5-5-5
44494T	Spot Calib for 44494			15 min @	4810 D3 15V	Hα D1 7V	5450 7V	D2	
44494F	Focus Test								

Exp. Mtr

Spectr. Temp. +38°F Dome Temp./Hum. 73°F / 93% Transparency Conditions .. bad

Focus 509

Spectr. Temp. .... Dome Temp./Hum. 72° / 95% 110

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
300/145	3-4	mv 7.7		BC	G243/.9	.5 150μ	098-02	B	Wh.-WR	some cloud	
							"				
				BC	G243/9	150/1.0	098	A			blank

111

SAT - Sun

Date Apr. 5-6. 80 Observers Bk - Tm

Emulsion Batches:

8"-65 IIa-O 07119 - 03040 21 222

8"-65 098-02E 22049 - 03205

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44495F1	1st Adjusted BS Focus Test					0 0	0°	Fe/—	30-7
44495	HD 62509	7 39.2	+28 16	19 22	19 23	0 18W		Fe/ND	8-6
44495F2	Focus Test					0 20W	+28°	Fe/—	8-8
44496	HD 62509	7 39.2	+28 16	19 32	19 34	0 29W		Fe/ND	8-8
44497	HD 71663	8 23.5	-2 11	19 42	20 47	1 00W	-2 21	"	6-6-6
44497T	Spot Calib for 44495-44503			15min @ 15V		04 3900 03 4300	02 4810		
44498	HD 71153	8 20.7	+24 52	20 50	23 30	3 46 W	+24 40	Fe/ND	6-6-6
44499	HD 71152	8 20.7	+25 52	23 32	0 54	4 52 W	+24 48	"	6-6-6
44500	HD 131041	14 46.3	+49 07	1 00	1 50	0 19E	+48 52	"	6-6-6
44501	HD 137391	15 20.7	+37 41	2 00	2 15	0 29E	+37 31	"	6-6-6
44502	HD 146361	16 10.9	+37 04	2 20	2 55	0 39E	+36 58	"	6-6-6
44503	HD 146362	16 10.9	+37 04	2 57	4 16	0 42W	+36 58	"	6-6-

Spectr. Temp. +47.5°F Dome Temp./Hum. +44°/70% Transparency Conditions Sl. hazy

Focus 5.03.5 - 505

Spectr. Temp. +42°F Dome Temp./Hum. +35°/82%

112

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G1/68	B5	098-02E	B		Brass Lens removed with correct lenses	sl hazy very wk.
40/20		2.15	KO/5	"	"	"	IIa 0-5	"	st/vol		sl str
				"	"	150/10	098-02E	"			
40/33				"	"	"	II-2E	"	st/vol		sl str
100/135	2"	6.57	F0	"	"	150/5	"	A	Wat Fog		vsl str
							"				
100/105	2-3'	8.0	F6	PC	G2/68	150/5	"	B	Wat Fog	* Exp meter out of balance for left eye	Poor OR Focus
400/132	3-5'	7.48	A2	"	"	"	"	A	"		vsl wk
400/120	3"	6.8	F0			"	"	B	"	Set 505	Fine
80/24	2"	4.05	F0			"	"	A	"	Cloud	Fine
100/125	2"	6.20	F6			"	"	B			Fine
100/116	3"	7.3	G1			"	"	A			Fine

113 Sun-Mon

Date Apr. 6-7 /80 Observers Tn: (KS Tests)

8m 68
5m 68

Emulsion Batches: 20030 21D
II-O-E 07119 -07200
098-02 E 20049 -10300
IIIa-J 919 [illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44504	HD 62509	07 37.2	+28 16	19 47	19 52	00 52W	+28 02	Fe/ND	9-9
44504F1	Focus Test						"	Fe/—	9-9
F2	" "						"	"	"
F3	" "						"	"	"
44505	HD 62509	07 39.2	+28 16	20 14	20 19	01 14W	"	Fe/ND	9-9
44505T	Spot Cals for 44504-			15 min ED	15V 3900	D4 D3 4300	D5 +200		
44506	HD 88021/2	10 03.8	+20 49	21 55	00 30	03 03 W	+20 30	Fe/ND	6-6-6
44506F	Focus Test						"	Fe/—	6-6

Spectr. Temp. +49.5°F ..... Dome Temp./Hum. +36°F/72% Transparency Conditions ... hazy - Cloudy .....

Focus ..... 505 .....

Spectr. Temp. 41°F ..... Dome Temp./Hum. +35°F/80% 114

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/36	3"	2.15	KO II	BC	G12/68	150/1.0	II-a-e	A	stabel		
				"	"	150/1.0	098-E	A			
				"	"	BS*	"	B		1* made sure center 1mm inside 2 cm limit	
				"	"	BS	"	A		(did same test for 098)	
40/18		2.15	KO II	"	"	"	II-a-e	A	stabel	Thick cloud	
							"				
100/114	2"-4"	720	9 G5+ A2	BC	G12/68	150/5	II-a-e	B	VB Bln	hazy T-142.5°F	
				"	"	150/10	II-a-e	B	broke after	Exp 2/3 pc equal	

MS

Fri/Sat

Date Apr. 11/12 1980 Observers Inr. - Tn

Emulsion Batches:
IIa-O e 27.9 - 9306 21 216
098 aF 2049 - 4.10
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44507	HD 112028	12 48.3	+83 58	19-49	20 04	03 40E	+8331	Fe/1	6-0
44507T	Spot Calc for 44507								
44507F	Focus Test					0°	-13°	T-ND	6-6

Spectr. Te
Focus....
Spectr. Te
Exp Mtr.
40/40

Spectr. Temp. +47°F ..... Dome Temp./Hum. 42F/88% Transparency Conditions ... Cloud .....

Focus ... 5031.5 .....

Spectr. Temp. ..... Dome Temp./Hum. ...../..... 116

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/40	3"	5.28	B8	RC	G12/.68	150M/1.5	IIaO-e	R	Bln-Shell	x cloud - tk shell	s/ak
							"			* poss. if possible	
				RC	G12/.68	150/1.0	098-25	R			OK

117 Sat-Sun

Date Apr. 12/13 1980 Observers B&K-T.M.

Emulsion Batches: IIa-E 07.119-03040 22 228

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44508	HD 146361	16 10.9	+34 07	2 44	3 46	0 42 W	+33 56	Fe/ND	6-6-6
44508F	Spot Calib. for 44508			15min @ 15V		D4 3900	D3 4300	D3 4300	
44509	HD 137391	15 20.7	+37 41	3 50	4 06	1 52 W	+37 27	Fe/ND	6-6
44510	HD 187691	19 46.2	+10 10	4 14	4 48	1 52 E	+10 22	H	6-6-6
44510F	Focus							Fe/—	6-6
44511	HD 194093	20 18.6	+39 56	4 51	4 54	2 19 E	+40 10	Fe/ND	9-9

Spectr. Temp. 143°F ..... Dome Temp./Hum. 136°F / 902. Transparency Conditions 118

Focus ..... 505 .....

Spectr. Temp. 142°F ..... Dome Temp./Hum. 129°F / 92%

Note - I found 1" end of plate with #6 written on it wedged in PHB rod [illegible] 9057 [illegible]

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		100/136	4"	620	F8	BC	92/66	150/5	IIaD	A	Wat Prog		
									"				
		100/120	4"	465	F0	"	612/66	150/5	"	B	Wat Prog		
		100/120	"	516	F8	"	"	"	"	A	"	cloud. again	
						"	"	150/0	"	B			
		40/12	4"	2-9	F8	"	"	150/5	"	B			

119

Sun · Moon

Date Apr. 13.14.1.80 ..... Observers ..KK-Tn.....

5m 680 Emulsion Batches:
..IIaJ-e...12018-...19020 28,274
.IIa0-c...17117-...0[illegible] n 20
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44512	HD 47105	06 31.9	+16 29	21 00	21:14	3 48 W	+16 27	Fe/—	10-10
44513	HD 47105	"	"	21 15	21:34	4 09 W	"	Fe/—	10-10
44514	HD 62509	07 39.2	+28 14	21:36	21 46	3 14 W	+28 04	"	10-10
44515	"	"	"	21:51	21 54	3 22 W	"	"	10-10
44515F	Focus Test						+ "	Fe/—	10-10
✓44515T	Spot Calib. for 44512 — 15				15 min @	12.5V D4 3920	15V D4 4300	15V ND 10	1-4 10
44516 ✓	HD 103095	11 47.2	+38 26	22 03	23 11	0 31 W	+	Fe/ND	6-6-6
44516T	Spot Calib. for 44516				15 min @	15V D4 3700	D3 9300	1 ND	1-2 4-10
44517	HD 121370	13 49.9	+18 54	23 18	23 28	1 12 E	+18 29	Fe/—	10-10
44518	HD 124897	14 11.1	+19 42	23 33	23 35	1 27 E		Fe/—	10-10
44519	HD 122742	13 58.6	+11 16	23 41	0 29	0 21 E	+ ——	Fe/ND	6-6
44520	HD 101501	11 35.8	+39 46	00 34	01 17	2 50 W		"	6-66
44520F	Focus							Fe/—	6-6

Spectr. Temp. 7.43°F ..... Dome Temp./Hum 135°F/.83 ..... Transparency Conditions .. hazy 120

Focus .... 505 - 506 .....

Spectr. Temp. ..39°F ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/50	3"	1.9	A0 V	BC	G12/.68	120/15	IIIaJ-Eb	A	Asm·Sp/KK		ok
50/50	4·8	"	"	"	"	-	"	B	"	v sl strong	comp
40/70	"	2.15	K0 III	"	"	"	"	A	std/vel		
50/70	"	"	"	"	"	BS	"	B	"	push	
				"	"	"	"	A		43°F	sl rel
							"				
100/106		7.2	G8 V	BC	G12/.68	BS	IIIaJ-e	B			
							"				
40/62		3.3	G0	Bc	G12/.68	BS	IIIaJeb	A	Asm·Sp/KK		vel
40/52		1.3	K2 III	"	"	"	"	B	Std vel.	re-gelapped arc	
90/100	3"	6.9	G8 V	"	"	"	IIaOe	A	Asm Sp/KK	F=506	
100/140	3"	6.07	G8 V	BC	G12/.68	BS	IIa-OE	B	Bln Std *	T= 39°F	
							"	B			

121

Date April 16-17 1980 WED/THURS Observers Ly-R / Rm-R

Emulsion Batches: Tech E. 17119-06040

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44521F	FOCUS					00 05W	+26 13	Fe/—	5-4
44521	HD62509	07 39.2	+28 14	19 44	19 46	01 26W	+28 10	Fe/ND	8-16
44522	AD72208	08 26.5	+10 09	19 53	21 45	02 39W	+09 52	Fe/ND	4-8-4
44523	HD 72359	08 27.2	+10 24	21 48	23 00	03 33W	+10 13	Fe/ND	8-8-2
44523 T1 ✓	spot cal fm plate	44521-			15 min @ 15 Ma	3900	D3 4300	D2 4910	
44524	HD 98547	11 15.2	+17 52	23 05	01 28	03 33 W	+17 29	Fe/ND	8-24
44525	HD 104587	12 40.5	+29 01	01 55	04 50	01 28 E	+29 17	Fe/—	8-64
	HD 85503-4 15	20 25.3	+30 2	04 58					
44525F	Focus							Fe/—	5-

Spectr. T
Focus
Spectr.
Exp. Mtr.

Spectr. Temp. 34°F Dome Temp./Hum. -02°C 74% Transparency Conditions . Light haze 122

Focus 506

Spectr. Temp. ..... Dome Temp./Hum. -05°C 81%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G8/-.025	150/1.0	IIaD	A			comp v weak
40/15	3"	2.15	K0III	"	"	"	"	B	Std Vel		"
100/150	2-3	6.5	A0p	"	"	"	"	A	Sp Bi-Ly		"
400/100	2-3	6.2	A0V	"	"	150/.3	"	B	Sp Bi-Ly		"
							"				
400/110	3-5	6.9	A0	BC	G8/-.025	150/.3	"	A	Sp Bi-Ly		"
400/170		6.76	F0 Gi	BC	G12/-.08	150/.5	"	B	Cyan/Ed 15	5% Focus Temp = 30	"
40/		4.02	FSI	"	"	"	"	A			
						150/1.0		B		Temp 30°	

Comparison Type/Filter Exp

173 Tour 1 hr

Emulsion Batches:

Date 1980 Apr 17/18 Th/Fr Observers Gun-KK-Ri (Engr.)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9452ST1	Focus test							Fe/—	15s.15
T2	Full aperture shift test							"	"
T3	" "							"	"
T4	Focus test							"	"
T5	Full aperture shift test							"	"
T6	Focus test							"	"
	Spot calibration								

Spectr. Temp. 42° Dome Temp./Hum. ..... Transparency Conditions 124.

Focus 305

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	316/.7	RS	IIaF	A	+3.5μ		
				"	"	"	"	B	−1.0μ	using external double-stop	
				"	"	"	"	B	+0.2μ		
				"	"	BS	"	A	+1.4μ		
				"	"	"	"	B	−1.9μ		
				"	"	150μ	"	A	+2.1μ		
							IV-N4				

125

Date April 18-19 1980 Fri-Sat Observers G.W.-R.

Emulsion Batches: 9m 67° HIE*; IV-Na 4m 0.001M N_2 burst
8m 68° Tech. E. IIIa-J 9-17070

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44526F	focus test							Fe/-	15-15
44527	HD 62509	07 39.2	+28 16	20:03	20.06	01 45 3W	+28°07	Ne/-	30-30-30
44528	"	"	"	20:10	20:14	02 02W	+28°07	"	"
44529	HD 40183	05 52.5	+44 56	20:21	20:28	04 01W	+45°01	"	"
44530	HD 52973	06 58.2	+20 43	20:33	21:23	03 51W	+20°39	"	"
44531T	spot plate II-N		15 min	@ 7½V	D3 8464				
44531	HD 52973	06 58.2	+20 43	21:26	22.20	01 47W	+20°39	Ne/-	30-30-30
44531T	spot calibration for plate	44529-30-31-32-33-34				7½V	min D4 7650	Fe/- 5½V	min D3 7½V
44532	HD 62509	07 39.2	+28 16	22:25	22:26	04 11W	+28 08	Ne/-	30-30-30
44533	HD 88961	01 22.4	+58 46	22.50	22 57	10 13W	+89° 10'	"	"
44534	"	"	"	23:00	23:07	10 28W	"	"	"
44535	HD 229013	01 22.5	+58 46	23:26	00:56	12 20 W	+89 10	Fe/ND	6-6-6
44535T	spot cal to plate	44535-36			15mm @ 15 Volts	D4 3900	D4 4340	D2 4810	
44536	HD 134877	14 11.1	-19 42	01 05	01 06	00 22W	-14 16	Fe/ND	6-12
44537	HD 213307	22 25.4	+57 54	01 29	2 28	00 [illegible]	+58°23	Ne/-	30-30-30

Spectr. Temp. ...52°F..... Dome Temp./Hum. ..08°C..80%. Transparency Conditions ..excellent..... 126

Focus .....50.3.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	G12/680	RS	IIaJ.	A			comp v weak
10/60		1.16	KO III	B.C.	G24/.9	R.S	IV-Nh	B	IR Ceph	"V" filter	heavy fog!
40/80		1.16	KO III	"	"	"	"	B	IR Ceph		"
40/90		1.86	A2 IV	"	"	"	HIE	A	IR Ceph		ok
0/80		3.92	F7 Ib	"	"	"	"	B	IR Ceph	(Ca II)	ok
40		3.92	F7 Ib	B.C.	G24/.9	RS	HIE	A	IR Ceph	(Hα)	sl wke ok
0/40		1.16	K0 III	B.C	G24/.9	RS	HIE	B	IR Ceph		black
0/90		2.00	F5 Ib	"	"	"	"	B	IR Ceph.	(Ca II) 50°F 504	"
0/90			"	"				B		(Hα)	"
0/80	3"	7.1	F5 II	"	G12/.68	150/.3	IIaOe	B	Pl. B	50°F 503	
							IIaO-E				
0/60		1.2	K2 III	"	"	150/.5	IIaO-E	A	std Vd		strong
0/100		.4	F5 Ib	"	G24/.9	RS	HIE	A	IR Ceph	(Ca II) 47°F 505	black

Emulsion Batches:

Date April 18/19/20 cont'd ..... Observers ....G.u.-.Ri.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44538	HD 213307	22 35.4	+57 54	02:32	03 23	05 32 E	+58 23	" /	5 30 30
44539	HD 187939	19 47.4	+00 45	03: 31	04 10	02 07 E	+01 00	"	"
44540	"	"	"	04:13	04:51	01 25 E	+01 00	"	"
	Apr 19/20								
44540T	Spot calibration			2 8464	15m D3	7½ V			

Spectr. T
Focus ...
Spectr. T
Exp. Mtr

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 1 2 8

Focus ..... 505 .....

Spectr. Temp. ..49°F..... Dome Temp./Hum. ..04°C...72% ...

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
01/110		~4	F6Ib	BC	G24/9	RS	HIE	B	IR Cepheids	(Hα) "V" filter	Hazy
/90		~4	F6Ib	"	"	"	"	A	"	(Ca II)	"
+0/90		"	"	"	"	"	"	B	"	(Hα)	"
							IV-N1				

Comparison Type/Filter Exp

129

Sun - Mon

Date Apr. 20-21/80 Observers Gu-Tn / Blu-Tn

Emulsion Batches: 098-02E* (2nd Set same batch)

8m 68° IIa-D IV-N

4m 68° 098-02E 20049 - 04010 (01040)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44541F	focus test							n/c /	30-30
44541	HD 2710	01 22 4	+88 46	20:19	20:41	02 20W	+29 13	-- /	30-30-30
44542	"	"	"	21:16	21:48	09 27W	"	"	"
44543T	Spot calib" for plates 44541-42				7½V	D3 25 min 7080	D3 20min 7680	D3 20min 8461	
44543	HD 2710B	01 22 5	+88 46	22:13	23:57	11 36 W	+89 14	F/ND	6 6 6
44543T	spot calib" for plates 44543-44,				15 min	15V D4 3900	D3 4300	D2 4210	
44544	HD 10150 1	11 35 5	+34 46	00 10	00 26	02 26 W	+34° 18'	F/ND	7-7
44545	"	"	"	00 32	01 48	03 48W	"	F/ND No-	8-8
44545T	Spot Calib for 44545, 46, 49, 50.			15 min	@ 150 D3	7V D1 H2	7V D1 5450		
44546	HD 141004	15 41.6	+7 40	01 55	02 36	00 30W	+7 24	F/ND No-	7-6 5-5
44546T	Spot Calib for 44547, 48								
44547	HD 141001	15 41.6	+7 40	02 33	03 11	01 05W	+7 27	F/ND No/-	3-5 3-3
44548	HD 161797	17 42.6	+27 42	03 16	03 34	00 32E	+27 43	F/ND No/-	5-3 3-3
44549	"	"	"	03 35	03 57	00 07E	"	F/ND No/-	3-5 5-5
44550	HD 188512	19 53 4	+6 09	04 02	04 50	02 36W	+6 21	F/ND No/-	8-5 8-5
44550F	Focus Test							F/-	8-5

Spectr. Temp. +26°F Dome Temp./Hum. +47°F/60% Transparency Conditions ..v. sl haze 1.30

Focus ..502 – 504.....

Spectr. Temp. +30°F Dome Temp./Hum. +42°F/63%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G24/.9	RS	IV-Nk	A		broken 1" Emulsion	
/200		500	F7b	"	"	"	"	B	IR Cyd	"V" filter	sl wk, comp wk
/253		"	"	"	"	"	"	B	"		comp wk, v sl wk
							IV-Nh				
200/419	3-1'	-4	F I	"	G12/.68	150/.3	II-O-e	A	Bl. B		sl wk
							IIaO-e				
30/36	3"	607	G3V	BC	G12/.68	RS	II-OE	B	Bl. Sky		
0/140	6"	"	"	BC	G16/.7	RS	098-02E	A	Bl. Sky		fine
							098-02E				
30/142	6"	5.03	G0V	BC	G16/.7	RS	098-02E	B	Bl. Sky		v sl str
							098-02E				
30/140	6"	5.03	G0V	BC	G16/.7	RS	098-02E	A	Bl. Sky	cloud	v sl str
10/71	4"	4.14	G IV	BC	G16/.7	RS	098-02E	B	Bl. Sky	cloud	v sl str
10/142	4"	4.14	G III	BC	G16/.7	RS	098-02E	A	Bl. Sky	cloud	
40/140	6"	4.17	G IV	BC	G16/.7	RS	098-02E	B	Bl. Sky	cloud	sl str
				B.C.	G16/.7	RS	098-02E	A		44° 50	sl red

131

Date April 21-22 1980 Observers MR-R

8m 69' Emulsion Batches: Tri-X-F 07119-17040

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
44551	HD 63887	07 46.1	+71 57	20 12	21 27	03 16 W	+71° 45'	Fe/ND	10-10
44552	HD 96003	10 59.3	+13 12	21 36	22 19	01 02 W	+12 46	"	10-10
44553	HD 124897	14 11.1	+19 42	22 25	22 26	02 02 E	+19 16	"	10-2
44554	HD 63887	07 46.1	+71 57	22 38	00:07	05 57 W	+71° 45	"	10-1
44554T	cal step wedge by plate 44551 - 44559					15 mm @ 150 volts	DC 3900	D3 4300	D2 4810
44555	HD 135679	15 11.3	+26 01	00 15	00:54	00 36 E	+25°40	Fe/ND	10-10
44556	HD 137182	15 19.5	+10°54	01:02	02:15	00 37 W	+10°36'	Fe/ND	10-10
44557	HD 156547	17 13.1	+26°00	02.24	03:16	00 15 E	+25°53'	Fe/ND	10-10
44558	HD 157702	17 19.7	+18°56'	03.21	04.38	01 01 W	+18°49	Fe/ND	10-10
44559	HD 161096	17 38 5	+04° 37'	04:41	04:49	00 51 W	+04 32	Fe/ND	10-10
44559F	dense tri-x							Fe/—	10-1

Spectr. Temp. ...56°F..... Dome Temp./Hum. 10°C..62% Transparency Conditions ....good.....1.3.2.

Focus .....502.....

Spectr. Temp. ..... Dome Temp./Hum. +06°C..64%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/150		7.52	A0	B.C.	G12/.680	B.S.	IIa0-E	A	Ap - MR	tele reversed	fine
400/150		6.75	Ap	"	"	"	"	B	"		v sl str
40/60		1.29	K2III p	"	"	"	"	A	Std. Vel.	x 1300	strong
400/150		7.52	A0	"	"	"	"	B	Ap - MR	tele reversed	v sl str.
							IIa0-E				
400/150	2 3	6.67	B9	"	"	"	IIa0-E	A	Ap - MR		fine
400/150		7.19	A0	"	"	"	"	B	Am - MR	50°F 503	v sl str.
400/150		7.04	A1	"	"	"	"	A	Am - MR		v sl str.
400/150		7.48	A0	"	"	"	"	B	Am - MR		v sl str.
40/60		3.93	K0III	"	"	"	"	A	Std Vel		sl str.
				"	"	"	"	B		48°F 503	v sl wed

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Emulsion Batches:
Tech-E 07119-19040

Date Tues. Wed. Apr. 27-28 Observers M.R.-R.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
44560F	focus test							Fe/—	10-
44560	HD 63887	07 46.1	+71° 57'	20.00	22:04	3h 58W	+71° 46	Fe/ND	10-10
44561	HD 124897	14 11.1	+19 42	22: 13	22:19	2h 08E	+19 16	Fe/ND	10
44561T	spectral for plate	44560-	65			15min 15Volts	D4 D3 D2 39W 43W 48W		10
44562	HD 137182	15 19.5	+10 54	00.13	01:55	00h 20W	+10° 39	Fe/ND	10-10
44563	HD 156547	17 13.1	+26 00	02.02	03:23	00h 05E	+25° 55	Fe/ND	10-10-
44564	HD 176003	18 53.0	+44° 05	03:31	04:27	00h 50E	+44° 11	Fe/ND	10
44565	HD 161096	17 38.5	+04 37'	04:36	04 42	00h 40W	+04 35'	Fe/ND	10-10
44565F	focus test							Fe/—	10

Spectr. Temp. ..52°F..... Dome Temp./Hum. 07°C..61% Transparency Conditions ..clouds & haze.....134.

Focus .....502 - 505.....

Spectr. Temp. .....43°F..... Dome Temp./Hum. 03°C...74%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G12/.680	BS.	IIaO E	A		52°F 502	v sl red
400/130	3-4	7.52	AOp	"	"	"	"	B	Ap-MR	SB2 tele. reversed clouds	fine
40/30		1 29	K2IIIp	"	"	"	"	A	Sd 2nd	48°F clouds 504	fine
							IIaO-E				
400/130		7.19	AO	"	"	"	"	B	Am-MR	clear again + windy	fine
400/180		704	A1	B.C.	G12/.680	BS	IIaO-E	A	Am-MR		fine
400/130		700	A1	"	"	"	"	B	"	46°F 505	fine
40/30		3.93	K2III	"	"	"	"	A	Sd 2nd		fine
							IIaO-E	B		43°F 505	v sl red

N35 1960

* Evacuate system nonfunctional

Emulsion Batches:
IIaO: E 07119 - 19040

Date Wed/Thurs Apr 23-24 Observers Ly-Tn / Rw-Tn

** separate #2 Exp box

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44566F	Focus Test					01 45W	+28 04		
44566	HD62509	07 39.2	+28 16	19.45	19:46	01 55W	+28	Fe/ND	12-17
44567	HD98547	11 15.2	+17 52	19:53	22 08	00 40W	+17 25	"	8-8-E
44567T ✓	Spot Cals for 44566-69,71.				15min @ 15sec	D4 3900	D3 4300	"	
44568	HD94118	10 46.7	+46 20	22:13	00h12	3h13W	+45 55	Fe/ND	8-E
44569	HD191004	15h41.6	+7° 90	00h22	00 36	01 16E	+7° 25	Fe/ND	6-6
44570	HD191004	15h41.6	+7° 90	00 41	00 56	00 57E	4	F/ND	6-6
44570T ✓	Spot Cals for 44570				15min @ 15sec	D4 3900	D3 4300	D3	
44571	HD196867 15V C5	19h40	+29°01	01 01	03 06	2 45E	+29°12	Fe/ND	6-6
44571F	Focus Test					2 41E		F/—	6-E

Spectr.
Focus
Spectr
Exp. Mn

Spectr. Temp. 51°F Dome Temp./Hum. 44°F / 69% Transparency Conditions Fine ... us haze 136

Focus 500

Spectr. Temp. ... F Dome Temp./Hum. 27°F / 90%

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	G8/-.025	150	IIIaJ	A		51°F 500	
	40/25		215	K2III	"	"	150/.5	IIaO-e	A	STD VEL	"	slsN
	100/110	2-5"	6.9	A0	"	"	150/.3	"	B	Sp Bin-Ly	May be 150/.5	fine
								"				
	400/10	4"	7.1	A2	BC	G8/-.025	150/.3	"	A	Sp Bin-Ly	Maybe 150/.5	
	30/15	4"	5.3	G0V	BC	G12/.68	150/.5	"	B	Bin Sht	T=43 Focus 505	vslslN
	/16	3"		G2V	BC	G12/.68	150/.5	IIaO-e**	A	" "	Fe Arc adj → South	Fine
								" **				
	/66	5-3"	6.7	F0-G0	BC	G12/.68	150/.5	IIaO-e	B	Appt/Focus	cloud	Flux ok? clouds
					"	"	150/1.0	IaO-E	A	505 Set	40° 505 Focus	fine
									~~B~~			

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Date Fri/Sat. APR. 25/26 Observers Inr.-In.....

Emulsion Batches:
8m 67° IIaO-e 07119 - 24040
4m 66° Date ... for tests ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44572F	Focus Test							I —	8-8
44572	HD 62509 (B Gem)	07 39.2	+28 16	19 56	19 58	2 13 W		Fe/ND	9-9
44573	HD 111456	12 44.3	+60 52	20 05	20 31	2 17 E		Fe/ND	6-6½
44574	HD 127617	14 27.3	+19 13	20 39	23 24	1 08 E	+18 53	Fe/ND	6-6½
44574T	Spot Calib for	44572 —			15 min @ 15V	D4 3900	D3 4300	D2 4810	
44574F1	Focus Test	150μ						Fe/—	6-6
F2	Focus Test	85						Fe/—	6-6
F3	Full Aperture Shift Test			comp 1st				Fe/—	15-15
F4	" "	" "		comp 1st				Fe/—	15-15
F5	½ Aperture by Mistake			"	(was brotion reported (mask on Comp)			Fe/—	7-7
F6	Full Aperture Shift test			"				Fe/—	7-7
F7	Focus Test	85						Fe/—	17-17
F8	" "	1.0μ						Fe/—	17-17
44575	HD 115043	13 09.5	+57 14	01 25	02 25	03 12W		Fe/ND	6-6-

Spectr. Temp. ..51°F..... Dome Temp./Hum. 47°F/76% Transparency Conditions ..Sl. hazy..... 738

Focus .....503.....

Spectr. Temp. ..48°F..... Dome Temp./Hum. 41°F/92%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/.68	150/10	IIa-O	B ?			
+0/16		2.15	KoIII	BC	G12/.68	150/.5	IIa-Oe	A ?	Std. Vel.	uneven some star-in comp slot	
+00/110	1-2"	6.31	F7V	"	"	"	"	A	Tnr-UMa		vsl str.
300/105	3	8.67	BSIIIV	"	"	150/.3	"	B	Tnr/Lg Prog.	cloud	fine
							"				
				BC	G12/.68	150/10	IIa-O	B	T=49°F Set 503		+3.3μ
				"	"	BS*	"	B	" "	* (electronic data stg insured)	+2.5μ
HrL 01½E-00 20E				"	"	"	IIaF	B	" "		−1.4μ
Dec +18	53			"	"	"	"	A	" "		−1.4μ
				BC	G12/.7	RS*	"	B			−1.1μ
				"	"	RS	"	A	↓ ↓		±0μ
				"	"	"	"	B			+1.8μ
				"	"	150/.3	"	B	T=48°F Set 502		+1.1μ
+00/72	1-3+	7.42	GIV	BC	G12/.68	150/.3	IIa-Oe	B	Tnr-UMa	clouds	vsl. stg.

139 2 Large Focus 2 2hrs Jupiter

Date Sat/Sun. Apr 26/27 Observers Tnr.—Tn

8m 67° Emulsion Batches: No 05 [illegible]-21540

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44576 ✓	HD 109011	12 26.5	+55 40	22 17	01 14	2 48 W	+55 14	Fe/ND	6-6-6
44576T	Spot Calc for 44576 — 78.				15mm @ 15V	D4 3900	D3 4200	D2 4500	
44577	HD 124752 A	14 10.3	+68 03	01 24	04 29	4 21 W	+67 41	Fe/ND	6-6-6
44578	HD 186791	19 41.5	+10 22	04 37	04 42	1 00 E	+10 33	Fe/ND	9-9
44578F	Focus						"	Fe/—	19-14

Spectr. Temp. +52°F Dome Temp./Hum. +49°/84% Transparency Conditions sl. hazy 140

Focus 503

Spectr. Temp. +45°F Dome Temp./Hum. +39°/99%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/202	1-2"	9.06	K2 V	B.C.	G12/.68	150/.3	IIa-Oe	B	Tnr-UMa	not developed with others broken-2 pieces saved	fine
							"				
800/103	2"	9.35	K1 V	"	"	"	"	A	Tnr-UMa	reversed	fine
40/18	"	4.15	K3 II	"	"	150/.5	"	B	Std, Vel		v sl str.
				"	"	150/.10	IIa F	A		comp << stellar	

1980 141

Date Apr 30 / May 1 Wed / Thurs Observers Ly-Tn

8h 66d

Emulsion Batches: IIa-O 07119 - 29010

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
44579 ✓	HD 98547	11 15.2	+17 52	20:55	22 22	1 22W	+17 26	Fe/ND	8-[illegible]
44579T	Spot Cal. for 44579			15 min @ 15V		D4 3900	D3 4300 D2 5450		
44579F	Focus					1 25W	+17 25	FeK	88

Spectr. T

Focus...

Spectr. T

Exp. Mtr.

Spectr. Temp. ...54°F..... Dome Temp./Hum. 52°F ../100% Transparency Conditions ..light..cirrus...humid.....

Focus ....499.....

Spectr. Temp. ...53.5°F..... Dome Temp./Hum. 50°F /100% dome dripping

142

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40m/40 *	2-3	687	AO	BC	58/-.025	150μ/3	IIaD	A	Spectroscopy	* Exp. meter unreliable. Cloud past 23 20	
							"				
							IIaF?	B		53.5°F	

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(098-02E #2 batch)

Date 1980 MAY 1/2 Observers KK-Tn / [illegible]-Tn

Emulsion Batches:
IIaO.e 07119 — 28040
098-02E 20049 — 01040
(#2 batch IIaO.e 07119 — 01050)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44580	HD47105	06 31.9	+16 29	20:50	20:55	4 41 W		Fe/ND	10 – 10
44581	HD62509	07 39.2	+28 16	21:00	21:01	3 40 W	+28 06	"	"
44582	HD103095	11 47.2	+38 26	21:10	22:24	0 55 W		Fe/ND	8-8-8
44583	HD122742	13 58.6	+11 16	22:29	23:10	0 28 E	+	Fe/ND	8-8-8
44584	HD124897	14 11.1	+19 42	23:16	23:16	0 35 E		"	12 12
44585	HD137909	15 23.7	+29 27	23:21	23:25	1 40 E		"	12-12
44585T ✓	Spot Calc for 44580–86, 92, 93, 96, 600,								
44586	HD142091	15 47.5	+35 58	23 32	23 43	1 49 E		Fe/ND	7-7-7
44587	HD101501	11 35.8	+34 16	00 02	01 00	0 51 W	+34 22	Fe/ND	6 6
44587T ✓	Spot Calc for 44587, 88, 97, 99,			15 min	@	15V D3 4810 / JV D1 Ha / JV DJ 5450		Ne/—	6-6
44588	HD142091	15 47.5	+35 58	01 05	01 36	0 10 W	+35 47	Fe/ND	6 6
44589	HD142091	"	"	01 37	02 06	00 39 W	"	Fe/ND	6 6
44589T ✓	Spot Calc for 44589, 98,			15 min	@	15V D3 4810 / JV DJ Ha / JV HD 5450		Ne/—	6-6
44590	HD142091	"	"	02 16	02 39	00 56 W	"	Fe/ND	10
44590T ✓	Spot Calc for 44590, 91, 94, 95, 601			15 min	@	15V D3 4810 / JV Ha 5400 / JV D3 4300		DJ 4510	

Spectr. Temp. 60° Dome Temp./Hum. 55°F/80% Transparency Conditions scattered clouds

Focus 427

Spectr. Temp. / Dome Temp./Hum. /

new D19

IIa0 8m D19 62°F

695 5m D19 67°F

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Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/18		1.9	AO IV	BC	1200/-.025	BS	IIa0e	A	Asm-Sp/KK	cloudy	fine
20/26	2-3	2.8	K0 V	"	"	"	"	B	Std Vel.		fine
150/210	3"	V= 6.45	G8 VI	"	"	"	"	A	Asm-Sp/KK	electronics start 21:25	v sl wk
120/210	2"	V= 6.71	G8 V	"	"	"	"	B	Asm-Sp/KK	meteor falling back to mid	v sl wk
20/20	2"	1.3	K2 III p	"	"	"	"	A	Std Vel		fine
20/20	2"	3.93	F0 p	"	"	"	"	B	Asm-Sp/KK		fine
							"				
20/46	1"			BC	G12/68	BS	"	A	BL-Std	broken 1" off mid-exp	
8				BC		BS	098-025	A	BL-Std	F-500	comp sl. str. fine
							098-025				
140	2			BC		BS	"	B	BL-Std		fin
20/140				"	"	"	098-025	A	"		v sl str.
							"				
18	2			BC		BS	IIa0-E	B		F-501 Tonight	fine
							"				

145 H2.

Date ..... Observers .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44591	HD 147860	15 51.8	+15 59	02 26	02 29	0 58 W	+	Fe/ND	10-10
44592	"	"	"	02 30	02 34	0 06 W		"	10-10
44593	HD 161797	17 43.6	+27 47	02 37	02 40	[illegible]	+27 45	"	10-10
44594	HD 161797	[illegible]	[illegible]	02 41	02 44	00 38 E		"	10-10
44595	HD 188512	19 50.4	+6 09	[illegible]	02 53	02 37 E	+06 34	"	10-10
44596	"	19 50.4	+6 09	02 57	03 02	00 32 E		"	10-10
44597	"	19 50.4	+6 09	03 09	03 25	02 05 E		Fe/ND N/-	9-9
44598	HD 198149	20 43.3	+61 27	03 30	03 42	[illegible]	+61 45	Fe/ND N/-	9-9
44599	"	"	"	03 43	03 54	[illegible]	"	Fe/ND N/-	9-9
44600	"	"	"	04 02	04 06	02 16 E		Fe/ND	10-10
44601	"	"	"	04 07	04 11	02 11 E		Fe/ND	10-10
44601F	Focus Test							Fe/-	10-10

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 52°F / 98% 146

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/16	2	43	76 II	BC	G12/68	RS	IIaO-e*	A	Bk-Std		v sl str
40/17		"	"	"	"	"	IIaO-e	B	"		"
40/20		4·14	G6 II	"	"	"	IIaO-e	A	"		"
40/20		"	"	"	"	"	IIaO-e*	B	"		v sl str
40/20		4·5	G2 II	"	"	"	IIaO-e*	A	"		
40/20		"	"	"	"	"	IIaO-e	B	"		
40/71	4·5	"	"	"	G6/17	RS	098-02 E	A	"		v sl str.
40/71	4·5	4·35	K5 IV	"	"	"	098-02 E*	B	"		sl str.
40/71	4·5	4·35	K0 IV	"	"	"	098-02 E	A	"		v sl str.
40/22	"	4·35	K0 III	"	G12/68	RS	IIaO-e	B	"	one end light streak	v sl str
40/27		"	"	"	"	RS	IIaO-e*	A	"		v sl str
				"	"	"	098-02 E	B		53° F 50%	sl red.

147

Date 1980 May 2/3 Observers KK-Tn / WL-Tn

$8^m 68^\circ$ Emulsion Batches: IIaO a 07119 – 01050

$5^m 67^\circ$ 098-02E 20019 – 07040

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44602	HD 137909	15 23.7	+29 27	23:03	23:07	E		Fe/ND	9-6
44603	"	"	"	23 09	23:12	1 48 E		"	9-9
44604	HD 124897	14 11.1	+19 42	23 15	23:16	0 32 E			9-9
44604T	Spot Calib for 44603-04			15 min	3400	03 1500	02 1810		
44605	HD 151287	16 41.4	+16 26	00 05	$02^h 06$	$0^h 11^m$ E		Fe/ND	5 5-6
44605T	Spot Calib	For 44605		15 min	1500 03 4810	7U 01 H=	7U 02	no	
44606	HD 168206	$18^h 13^m.5$	$-11^\circ 40'$	$02^h 15^m$	$4^h 20^m$	30^m W	–	Fe/ND	8 5-5
44606F	Focus Test							Fe/–	15 15

Spectr. Temp. 62° Dome Temp./Hum. 58°F / 80% Transparency Conditions ... hazy

Focus ... -199

Spectr. Temp. 60°F Dome Temp./Hum. 56°F / 90%

148

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/15	1-2"	3 9	F0p	BC	830/.68	BS	IIIaJ	A	Asin Sp Pk		v sl str unguid!
40/14	"	"	"	"	"	"	"	B	"		v sl str unguid
40/17	"			"	"	"	"	A	sky		v sl str
							"				
830/? *	3-4	mv 8.0	B9	BC	400/.38	250/3	[illegible]	B	HLBS	* no Lyot mask comp st. str. ∨ filter in	∨ wk
							"				
No Meter	4"	mv 9.4	WC+	BC	[illegible]	[illegible]	[illegible]	A	WR		comp st str, wk
				"	"	"	830	B			good

149 Soft-Sun

Date 1980 May 3/4 Observers ...BK-RJ.....

8m 68 Emulsion Batches:

II-a-E 07119-01050

II-aw-E 07119-02050

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44607	HD 112033	12 48.4	+21 48	22 18	22 44	0 22W	+21°24	Fe/ND	6-6-6
44608	HD 113022	12 55.7	+18 55	22 50	23:47	01°23W	+18°30	Fe/ND	6-6-6
446087 ✓	spectral fn plates	44607-08		15min @ 152volts		D4 3900	D3 4300	D2 4810	
44609	HD 124654	14 09.9	+52 16	23 52	00:45	01°05W	+51°55	Fe/ND	6-6-6
44610	HD 124655	14 09.9	+52 16	0 46	00:56	01°15W	+51°55	Fe/ND	6-6-6
44611	HD 137392	15 20.7	+37 41	1 00	02:35	01°43W	+37°27	Fe/ND	6-6-6
44611 T1 ✓	spectral fn plates	44609-44617		15min @ 152volts		D4 3900	D3 4300	D2 4810	
44612	HD 137391	15 20.7	+37 41	2 36	02:49	01°56W	+37°29'	Fe/ND	6-6-6
44613	HD 187013	19 42.6	+33 30	2 54	03.17	01°57E	+33°43'	Fe/ND	6-6-6
44614	HD 190147	19 58.5	+49 49	3 22	03:51	01°38E	+50°04	Fe/ND	6-6-6
44615	HD 194093	20 18.6	+39 56	3 54	3 57	1 54E	+40 12	Fe/ND	9-9
44616	HD 187691	19 46.2	+10 10	4 05	4 29	0 50E	+10°25	Fe/ND	6-6-6
44617	HD 186791	19 41.5	+10 22	4 38	4 41	0 34E	+10 35	Fe/ND	9-9
44617F1	eform test							Fe/-	8-8

Spectr. Temp. ..65°F..... Dome Temp./Hum. 14°C...65% Transparency Conditions .....Good..... 150

Focus .....498..-500....

Spectr. Temp. ....57°F..... Dome Temp./Hum. ..11°C....68%

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	400/146	3-4	5.86	K0	B.C.	830/.68	150/.5	IIaO-E*	A	Waterloo		fair
	400/120		6.6	F7 II	B.C.	830/.68	150/.5	"	B	"		v sl str
								IIaO-E*		"		
	400/120		6.61	F0	B.C.	830/.68	150/.5	IIaO E	A	"		v sl str
	400/100	3	4.6	A8	B.C.	830/.68	150/.5	IIaO E	B	"		Fine
	400/120		7.1	G0	B.C.	830/.68	150/.5	IIaO-E	A	"	60°F 500	v sl str.
								IIaO-E			in small aperal Box	
	400/120		4.6	F0	B.C.	830/.68	150/.5	IIaO-E	B	"		sl str
	400/120	3-4	5.5	F5	B.C.	830/.680	150/.5	IIaO-E	A	"		v sl str
	400/150		6.2	K1	B.C.	830/.680	150/.5	IIaO-E	B	"		fine
	400/120		2.9	F8	B.C.	830/.680	150/.5	IIaO-E	A			v sl str
	400/150		5.6	F6	B.C.	830/.680	150/.5	IIaO-E	B			v sl str
	400/120		4.2	K2	B.C.	830/.680	150/.5	IIaO E	A	Std. Tilt		fine
					BC	830/.650	150/1.0	IIaO-E	B		57°F 500	

151

Sean/Mon

Date 1950 May 4/5 Observers Kus-Tu

8h 68° Emulsion Batches:

" IIaO e.07[illegible]-02[illegible]

IIaO e.0[illegible]-04[illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4+618F	Focus							F/—	8-8
44616	HD[illegible] c Leo	9h 40.2	+29° 14	20h 07	20h 10	0 59 W	+23° 55	F/[illegible]	9-9
44619	HD[illegible] Leo	10h 14.3	+17° 59	20h 18	20h 30	0h 45 W	+[illegible]° 31	F/[illegible]	7-7
44620	HD 88221/2	10h 03.8	+20° 49	22h 33	22h 44	3h 10 W	+[illegible]° 07	[illegible]/[illegible]	6-6
44621DT ✓	Spot Calc for 44618-			15 min @ 15V		D4 3900	D3 4300	D2 4800	
44622	HD 137409 = 30 Oph	15h 33.1	+24° 37	23h 51	23h 04	1h 46 E	+24° 1	F/[illegible]	6-6
44623	HD 103500 = 31 Vir	17h 51.4	+36° 4	23h 11	23h 46	3h 38 E	+26° 05	F/[illegible]	5-6
44623	HD 180503 = 14 Tau	19h 12.0	+27° 54	23h 58	01 54	2h 45 E	27° 55	[illegible]/[illegible]	6-6
44624	HD 186555 = 54 Sgr	19h 40.8	+29° 01	01h 59	03 48	1h 30 E	+[illegible]° 16	[illegible]/[illegible]	6-6-6
44625T ✓	Spot Calc for 44623-			15 min @ 15V		D4 3900	D3 4300	D2 4800	
44625	HD 203168 = HR 8167	21h 15.9	+37° 49	3 51	4h 28	2h 15 E	+38 10	F/[illegible]	6-6-
44626F	Focus							F/—	6-6

Spectr. Temp. ....65°F..... Dome Temp./Hum. ..63°F/55% Transparency Conditions .....

Focus .....498.....

Spectr. Temp. 63....°F..... Dome Temp./Hum. 58°/63% 152

Comparison e/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						B	830/.68	150/.5	I a C E	B		broken: 1 on each piece 2" max no good	cent Rel prob due to frost.
		40 13	2-3	3.8	Gp I	BC	830/.68	.10/.5	I a O E	A	Ceph/Evans		Fine sl grey
		40/13	1	5.3	F I	BC	830/.68	15/.5	I a OE	B	Sky rel		sl str
		40/14	3"	7.20	G	"	"	15/.5	I a OE	A	VB Blue	cloud	sl str sl fogg
									h				
		40/14	2-4	3.13	Fp	BC	830/.68	70/.5	I a OE	B	KK		sl str poor red focus
		40/113		5.3	F I a	BC	830/.68	150/.5	I a OE	A	Ceph/Evans		fine
		40/91	4-6"	6.7	F	BC	830/.68	150/.5	I a OE	B	Ceph/Evans	Cloud	fair
		40/105	"	6.7	F	BC	830/.68	15/.5	"	A	Ceph/Evans		Fine
									"			64° F	
		40/103	3"	5.8	F	BC	830/.68	15/.5	"	B	Ceph/Evans		fine fogg?
									"				OK

153 Mon-Tues

Date May 5-6/80 Observers MR-TM-WLR

Emulsion Batches:
IIaO-e 07119 - 05050
5" 68F 09602E 20099 - 19040

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44626	HD96003	$10^h 59.^m3$	$+13° 12'$	20:36	22:25	2 01W		Fe/HD	7-(7-)
44626T	Spot Calc for 44526	"			15min@15V	D4 3990	D3		
44627	HD114330	$13^h 04.^s8$	$-5° 0'$	$0^h 02^m$	0.20	1 49W			5-5
44628	HD 124897 3rd	14 11.1	+19 42	$0^h 25^m$	$0^h 27^m$	$0^h 48^m$ W			
44629		"	"	$0^h 36^m$	$0^h 37^m$	$0^h 58^m$ W			
44630	"	"	"	$0^h 46$	$0^h 46.5$	$1^h 12^m$ W.			
44630F	Focas Test					2^h E	$-11°$	Fe/ No filter	6-6 16-16
44630T	Spot Calc for	44627-30			15min@	15V D3 1810	7.0		
				20:23			+12 22		6-

Spectr. Temp. ..... 73°F Dome Temp./Hum. 68F / 56% Transparency Conditions .. Cloudy .....

Focus ..... 495 .....

Spectr. Temp. 67°F ..... Dome Temp./Hum. 50°F / .....

154

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/47	2"	6.75	A3p	BC	830/.68	BS	5.0-E	A	Hp-MR	Thick clouds.	ok
22 prob 40							"				
20/35		4.37	A1 II	BC	400/.38	150/.5	098-02E	A	Wh Test	V filter	fine comp sl. str.
40/15		-0.06	K2 IIp	"	400/.38	"	"	B	Wh Test	V filter	strong
40/		"	"	"	1200/.7	"	"	B	"		sl str
40/16		"	"	"	"	RS	"	A	"		fine
				"	400/.38	150/3	"	B	V filter	T=67°F Col 502	
							"				

155

Date .. May. 6-7..... Observers . MR-Tu.....

Emulsion Batches:

098-02E ..... 19098 batch

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44631F	Focus Test							Fol—	7-7
~~44631~~				2023					
44631T	Spot Calib of Hα at odd			098batch	15min	@	7V Hα	01	

Spectr. Temp. 61°F ..... Dome Temp./Hum. ...../..... Transparency Conditions ... Cloud .....

Focus ... 499 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

156

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				RC	G12/.68	BS	IIaO	B			
							IIaO-C	A		cld	blank
							098-02E				

157

Wednesday / Thursday

Date . MAY . 7 . / 8 . , 19 80 . Observers . . G.S. - R.I. . . . . .

$8^m 68^\circ$

Emulsion Batches:

IIaD - E . . 07119 - 05050 . .

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44632	HD 91316 = ρ Leo	$10^h 27^m 33^s$	$+9^\circ 49'$	22:10	22:15	$2^h 33^m W$	$+9^\circ 30'$	Fe/ND	8-8-5
44633	HD 124897 = α Boo	14 11.1	+19 42	22:25	22:26	$1^m 02^s E$	+19 20	Fe/ND	8-8-8
44634	HDE 226868	19 54.6	+34 56	22:59	03:25	$1^m 44 E$	+35 10	Fe/ND	7-7-7
44634T	Spectral for 44632-35				15 min @ 15V	DH 3900	D3 4300	P2 4810	
44634T2	spectral of Hd for new 098 Batch				15 min @ 7V	P1			
44635	HD 188439	19 50.1	+47 33	3:36	4:20	$0^h 44^m E$	+47 46	Fe/ND	7-7-5

Spectr. Temp. ..52°F..... Dome Temp./Hum. 48°F/71%. Transparency Conditions ...High cloud.....

Focus .....503.....

Spectr. Temp. ..45°F..... Dome Temp./Hum. 37°F/79%.

158

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/160	4	3.85	B1 Ib	BC	1200/-025	BS	IaOe	A	Bln-std.	52°F 502	fine
40/21		1.29	K2 II p	"	"	"	"	B	Vel. ctr.		fine
800/470		8.9	O9.7 Iab	"	830/168	"	"	A	Bln-sp bin.	50°F 503	weak
							"				
							098-0				
400/130	~5"	6.3	B0.5 III p	"	830/.68	"	IaOe	B	Bln-running	45°F 504 for seeing	v s/sm

159

Date 8/9 May '80 Observers Ri Mpl

Emulsion Batches:
Tmax-P 0711-0510
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44636A	focus test							Fe/—	8-8
44636	Callisto (Jupiter IV)	—	—	20:23	21:43	02°24W	+12°22	Fe/ND	6-12
44636✓1	cal plate			15 min @ 15 Volts		39 D2	43 D3	48 D2 10	

Spectr. Temp. 503 Dome Temp./Hum. 07°C 70% Transparency Conditions .....

Focus 56°F

Spectr. Temp. ..... Dome Temp./Hum. .....

160

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.64	120/1.0	IIa-E	A		56°F 503	s/red
300/48	3"	6.2	G2	B.C.	"	120/1.5	IIaO-E	B	Selen Type	ux Candelia	v/dark
							IIaO-E				

161

Thu/Fri

Date 15/16 May 1980 Observers Tnr/Tm

Emulsion Batches: IIaOe 0719-

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44637F	Focus TEST							Fe/	
44637	HD124897 (αBoo)	14h 11.1m	+19° 42'	20h 11m	20h 12m	2h 45m E		Fe/ND	9-9
44638	HD109011	12 26.5	+55 40	20 31	23 01	2 11 W		Fe/ND	4-4
44638T ✓	Spot Calc	for 44637-41			15mm @ 15V	D4 3900	D3 4300	D2 4800	
44639	HD 111456	12 44.3	+60 52	23 07	23 44	2 13 W	+60 29	Fe/ND	6-12
44640	BD +22° 3786	19 39.2	+22 57	00 03	02 34	1 50 E	+23 11	Fe/ND	4-4
44641	HD 174403	18 45.2	-20 25	02 47	04 05	0 34 W	-20 16	Fe/ND	4-4
44641F	Focus Test							Fe/	

Spectr. Temp. 55°F Dome Temp./Hum. 50°/70% Transparency Conditions Sl. haze

Focus 501.5

Spectr. Temp. ..... Dome Temp./Hum. 49°/76% 162

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Bc	830/1.68	150μ/1.0	IIaO-E	A		55°F 501.5	
40/15	4"	1.29	K2 III	"	"	150μ/.5	IaO-E	B	Std. Vel.		
300/202	3"	9.06	K2 II	"	"	200μ/.3	"	A	Tnr UMa		fine
							"				
400/130	2-3"	6.31	F7 V	"	"	150μ/.5	"	B	Tnr UMa		vsl str
300/70	2-3"	10.5	F+B?	"	150/.5	250μ/.3	"	B	Tnr Prog	50°F 509	uneven vsl wk
400/44	5"	7.5	BG IV	"	830/1.68	250/.5	"	A	Tnr Prog	49°F 503	fine vstrong Hg
				"	830/1.68	250/1.0	IaO	B			sl red

163

Fri / Sat.

Date 16./17. May 1980 Observers Gus / Jon / Wiz

Emulsion Batches:

8" 68° IIaO-E 07119 - 08050

5" 68° 098-02E 20049 - 06003

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44642	HD 91316 = ρ Leo	$10^h 27.^m5$	$+9° 49'$	20:28	20:42	1 35W	+9 02	Fe/ND	8-8-8
44642F	Focus								
44643	HD 91316	$10^h 27.5$	9 49	20:51	22:28	3 20W	+9 02	Fe/ND Neg	8-8-8
44643T1	Spec Calib for 44642; 44-46.			15m @ 15V		D4 3900 D3 4300	D2 4810		
44643T2	Spec Calib for 44643.			15m in @		D3 4300 D1 TV No	D2 TV 5450		
44644	HD 91316	10 27.5	9 49	22:32	23:30	4 20W	+9 28	Fe/ND	8-8-
44644	HD 124897 (αBoo)	14 11.1	19 42	23:36	23:3-			Fe/ND	12-
44644	HD 124897 (αBoo)	14 11.1	+19 42	23:40	23:44	00 52W	+19 20	Fe/ND	12-12
44645	HD 141513	15 44.4	-3 07	23:51	00:15	00 11E	-3 18	Fe/ND	12-12
44646	HD 157482	17 18.5	+40 04	00:19	02:00	00 01W	+39 58	Fe/ND	8-8-

Spectr. Temp. 61°F ..... Dome Temp./Hum. 59°F/52% Transparency Conditions ... getting cloudy .....

Focus .....

Spectr. Temp. 60°F ..... Dome Temp./Hum. 54°F/60%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/17	1-2"	3.85	B1 I6	BC	1200/-.025	120/5	IIaOe	B	Sp. Std.	Focus 497	s/str.
							IIaO	A		T=61° Se+497	
40/82	1-2"	3.85	B1 I6	BC	1200/0.7	120/.5	O-8-02E	A	Sp Std	495	strong
							IIaO-e				
							O-8-02E				
40/87	2"	"	"	"	1200/-.025	120/.5	IIaOe	B	Sp. Std.	496 ↺ double exposure	discarded
40/7				"	1200/-.025	120/.5	IIaOe	A	Std. Velocity		
40/22	2'	1.29	<2 III	"	1200/-.025	120/.5	IIaOe	B	Std. Velocity	496	v s/str.
400/125	2'	3.54	A0 I	"	1200/-.025	150/.5	"	A	S.B. - Bln		fair
400/256	1-2"	5.72	dF8	"	1200/-.025	150/.5	"	B	S.B. - Bln/Ly		fair

165

8m 68°

Emulsion Batches:
IIaO.g 07119-06050
IIaO.g 07119-[illegible]
.....

Date MAY 19-20/80 Observers But-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44647F	Focus Test (with Telle Mouse Redd'Mount at 6ft)							F-ND	5-5
44647	HD124897 (α Boo)	14 11.1	+19 42	20 47	20 48	01 51E		F-ND	8-7
44648	HD120092	14 29.1	+43 27	20 51	23 06	0007W		N	4-6
44648T ✓	Spot Calib for	44647-	48.		15 min @	15V 2910 D1	4200 D3	4210 D2	
44649	HD135679	15 11.3	+26 01	23 11	0120	0140W	25 45	FG/ND	C-1
44649T ✓	Spot Calib for	44649-	50		15 min @ 15V	D2 3910	D3 4200	D2 4210	
44650	HD156541	17 13.1	+26 00	01 27	0336	0155W	+25 56	10-N	C-6-6
44650F	Focus Test							Foil	

Spectr. Temp. 16.4°F ..... Dome Temp./Hum. 45°F / 90% Transparency Conditions ..Some Cloud.....

Focus .....499.....

Spectr. Temp. ..55°F..... Dome Temp./Hum. 50° / 100%+

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/.68	BS	IIaO	B			
10/30		1.29	W2 III	Bc	G12 /.68	BS	IIaE	A	STD VEL		comp sl wk star v sl str.
100/105	3"	6.88	A2	"	"	"	"	A	Ap MR	CLOUD (EXPOSITION?)	Comp wk fair
							"				
20/130	3"	6.67	K9	BC	G12/.68	BS	IIaO-E*	B	Ap MR	CLOUD	comp sl wk v sl str.
							"				
1/2=260*	3"	7.04	A1	DC	G12/.68	BS	IIaE*	A	Ap MR	* no Exp meter, est 2:33 Set 501 T=57°F	fair comp wk
				"	"	"	IIaO	B		" T=55°F	

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Date MAY 20/21 TUES/WED 148 Observers But-Tw

Emulsion Batches:
IIaO-E 07119 08050

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44651	HD 63887	07 46.1	+71 57	21 04	00 49	0925 W	+71 49	FE/NL	6-8-8
44651T ✓	Spot Calib for 44651		-52	15 min	@ 15V	D4 3900	D3 4300	D2 4810	
44652	HD 124897 (α Boo)	14 11.1	+19 42	00 58	01:00	0220 W	+19 17	FE/NL	12-12
44652F	FOCUS TEST					"	"	FE/—	F D

Spectr. Temp. +64°F Dome Temp./Hum. +60°F/72% Transparency Conditions hazy

Focus 498.5

Spectr. Temp. +60°F Dome Temp./Hum. +55°F/80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/165	2"	7.52	Ap	BC	G12/68	BS	IIa-F	A	Ap MR	Reversed	v sl wk comp. sl. wk
							"				
10/20		1.29	4 + III	BC	G12/68	BS		B	STD VEL	REV.	comp v wk star v sl str
				"	"	"	"	A		Rev	focus good exp v sl wk

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Date 21/22 MAY 1980 Observers Bla-Tn

Emulsion Batches:
8" 68° IIaO e..07119..20050
5" 68° IIIaJ..07119..16050

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44653F	Focus Test								
44653	HD 187283	19h 15m 3	+03 53	23 34	20 48	00 11 W	-3 27		3-59
44653T	Spot Calib	for 44653-			15 min @ 15 V		D4 3900 D3 4300		
44654	[illegible]	[illegible]	[illegible]	[illegible]			+36° 53'		
44654	HD 187911	19h 11m 1	-3° 57'	21 29	23 06	01 35 W	-3° 19'		8-3
44655	HD 187982	17 18.5	+40 04	23 15	01 32	00 54 W	+40 00		12-3
44656	HD 188439	19h 20m 1	+17° 33'	01 29	03 18	00 50 E	+17° 41		8-
44657	HD 188439	19h 20m 1	+17° 33'	03 19	04 00	00 00 E	+17° 41		8-
	May 22								
44657T1	Spot calibration		D3	64	35m	7½ V			
T2	" "								

Spectr. Temp. ....67°F..... Dome Temp./Hum. 66°F / 70% Transparency Conditions Slt haze - very hazy.....

Focus .....49.7.....

Spectr. Temp. .66°F..... Dome Temp./Hum. 59°F / 54%

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Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	ES	IIa-0E	A		F=49.2 T=67°F	
30/50	2	6.1	K1	BC	830/.68	ES	IIa-0E	A	Sta Vel.		fine
							IIa-0E				
300/	2	4.5?	?	BC	1200/.5	25μ	IIa-0E	B	?? Bta	Too Faint - No good F=67°F	
400/ 67	2	7.18	E2 IV	B.C.	830/.68	ES	IIa0-E	A	FUNAWAY *	F=49.2 T=67°F	sl uneven
420/430	2'	8.22	J F8	BC	1200/.025	ES	"	B	SE-Eta	F=49.4(6") T=67°F	sl str
200/ .5	2"	6.18	E2 IV	BC	830/.68	ES	"	A	FUNAWAY *	F=49.2 T=67°F	v sl str
430/.5	2"	6.18	F2 IV	BC	830/.68	ES	IIa 0E	A	FUNAWAY *		v sl str
							"	"			
							HIE (2/81)				
							IIIaJ				

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Tau-Tel

Date 28/23 May 26 Observers Ru-Tu

8m 68m

Emulsion Batches: IIa0-E ... 20...-0

IIIaJ eb 07119-16060 (20h make)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44658F	Focus test							F/	8-3
44658	HD136202	15h19.2	+03° 09	20h25	21h32	02h01E	+1° 54	R/	8-8
44659	HD163506 = 89 Her	17h51.4	+26° 9	21h35	23h38	2h 30 E	+26° 05	F/	8-8
44659T ✓	Spot Calib for 44658-60			15m. @ 15V		DA 3400	DA 4300	DA 4200	
44660	HD [illegible] 5U Cyg	1[illegible]	+29° 01	23:57	03 50	00 05E	+29° 15	F/	8-8
44660T	Spot Calib.		DA 4300	15V	15m				

Spectr. Temp. 79°F ..... Dome Temp./Hum. 73°F / 56% Transparency Conditions hazy, cloud .....

Focus 496 .....

Spectr. Temp. 70°F ..... Dome Temp./Hum. 65°F / 72% 172

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				SC	830/.68	30/1.0	IIa 01	B		Sine bar = 74°F 47 feet	v sl red
60/120	1"	5.6	G0	BC	830/.68	150/.5	IIa 0E	A	Std vel		v sl wk
60/—	2'	58	F2 III	BC	830/.61	150/.5	IIa 0E	B	Cayh/Evans		wk
							"				
60/—	2-3	GR-L1	F6-G1	BC	830/1.00	150/.8	IIa E	A	Cayh/Evans	looks ok on TV display at top voltage	fine
							IIa 3eb				

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Date .MAY.23-24/80. Observers .G.+.T.n..... 7m 71°

Emulsion Batches:
D.O.E. 07[illegible] - 20[illegible]50
HIE [illegible] 2/81.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44661F	Focus Test							Fol—	8-8
44661	HD 124897	14 11.1	+19 42	20 19	20 21	0204 E	+19 17	Fol+D	12-12
44662F	Focus Test							No/—	30-30
44662	also HD 124897	14 11.1	+19 42	20 52	20 57	01 28 E	+19 17	No/—	30-30
44663	HD 5590	01 22.4	-85 46	21 09	21 36	12 37 W	+61 17	[illegible]	[illegible]
44664	HD 5590	"	"	21 40	22 05	13 07 W	+61 13	[illegible]	[illegible]
44665T	Spot calib	on 44662	-66		7½ V 7650	[illegible]	[illegible]		
[illegible]	HD 213307	22 35.5	+57 54	00 39	02 55	03 48 E	+58 19	[illegible]	[illegible]
[illegible]	HD 204867	21 36.3	-86 01	03 07	04 07	01 30 E	-5 36	[illegible]	[illegible]

Spectr. Temp. 77°F ..... Dome Temp./Hum. 75°F / 60% Transparency Conditions ... Hazy - Cloudy .....

Focus .... 4.95 .....

Spectr. Temp. 72°F ..... Dome Temp./Hum. 67°F / 60%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/1.68	150/110	IIaO	A			
40/?? *	1"	1.09	K2III	"	"	"	IIaD-E	A	stdVel	* Exp meter was unplugged	Fair/ok slight
				"	830/1.9	RS*	098-02E	A		* with V filter	
40/160	1"	1.09	K2III	"	830/1.9	RS*	HIE	B	stdVel		
0/173	"	2.00	K2III	"	"	"	"	A	IR Cepheid	Ca K plus back exposure	
40/171	1"	2.00	"	"	"	"	"	B	"	Hα	
							"				
40/161		2.9	K2III	"	"	"	"	B	IR Cepheid		
40/103	2"	2.6	K2III	"	"	"	"	B	"		

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Date 25/26 MAY 1980 SUN/MON Observers B.Ln-Tn

Emulsion Batches: IV-0e 07119 : 2205.0

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44667F	FOCUS TEST							Fo/-	3-3
44667	HD107328	12h 15m.3	+03° 53'	20 22	20 46	0 25 W	+03 27	Fo/ND	12-12
44668	HD97991	11h 11m.1	−2° 55'	20 50	22 17	03 00 W	−3 19	Fo/ND	12-12
44668T	Spot cals	For 44667-			15 min @ 15V				
44669	HD152482	17 18.5	+40 04	22 29	00 29	00 59 E	+40° 00'	Fo/ND	1-12-12
44670	HD181439	19 50.1	+17 33	00 33	01 28	02 27 E	+17 45	Fo/ND	12-12
44671	"	"	"	01 30	02 33	01 20 E	"	"	12-12
44672	HD181439	19 50.1	+17 33	02 35	03 32	01 22 E	"	Fo/ND	12-12
44673	HD203064	21h 14m 7	+45° 31'	03 36	03 52	01 27 E	+45° 52'	Fo/ND	5-15

Spectr. Temp. 69°F Dome Temp./Hum. 66°F/53% Transparency Conditions Sl. hazy

Focus 497-499

Spectr. Temp. 59°F Dome Temp./Hum. 50°F/70%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	12 330/68	BS	IIa-O	A		T=69°F F=497	
30/52	3-5	6.1	K1	BC	830/68	BS	IIa-O E	A	Std. Vol.		Fine
00/21	5"	7.13	B5V	BC	330/68	BS	IIa-O E	B	RUNAWAY*	Very thick haze	Poor
							IIa-O E				
/10	4"	6.22	dF8	BC		BS	IIa-O E	B	STE-Bl	Thick haze 10/ 00 30	Fine
00/76	4"	6.13	B0-III	BC	330/68	BS	IIa-O E	A	Runaway *	T=63°F	Fine
30/50	3"	"	"	"	"	"	"	B	"	Set 494	Fine
00/25	3"	5.13	B0.5III	BC	330/63	BS	IIa-O	A	Runaway *		Fine
/20		4.13	O5V	BC	330/68	BS	IIa-O	B	Runaway *		Fine

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Date 2/3 JUNE 1950 Mon-Tue Observers MR-Ri

5m 68D Emulsion Batches: Ilo-E 07119-23050

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~44674~~	~~HD 137182~~	~~15 19.5~~	~~+10° 54~~	~~21:35~~	~~21:55~~	00"58 E	-100 39'	Fe/ND	12-12-1
~~44675~~	~~HD 146530~~	~~15 46.6~~	~~+44 49~~	~~22:15~~	22:28		+44° 37	Fe/ND	12-12-1
44674	HD 137182	15h 19.5m	+10° 54'	23:15	00:55	02"02 W		Fe/ND	12-12-1
44674½	spectra on plates			15m @ 15 Volts		D4 350	D3 43W	D2 4F10	
44675½	flown TH							Fe/—	8-8

Spectr. Temp. ....64°F..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....498.....

Spectr. Temp. .....64°F..... Dome Temp./Hum. ...14°C...100% 74" Mirror aluminized May 24/27 178

Comparison Type Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND	400/140	2-3	7.19	AO	B.C.	830/63	BS	IIaO-E	A	Am MR	Curtain too fast? Developed — nothing on it	
ND	80/30	2-3	7.57	AO	"	"	"	"	B	" "	Try again 50 still too fast. So —	↑
ND	80/97		7.19	AO	B.C.				A	Am MR	dark under & light	sl wk.
								IIaO-E			High voltage set too high 1300 ✓ under	
								"	B		64°F	

1/2

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Date 3/4 JUNE 1980 Observers MR-Ri

Tue Wed

Emulsion Batches:
Tech-E* 0719-23050
Tech-E 0719-03060

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44675 F1	focus test							Fe/—	10-10
44675	HD 137182	15 19.5	+10° 54′	20:46	22:32	0:18 E	+10° 40′	Fe/ND	12-12-
44675 T1	spectral fn plate 44675			15 min @ 15 Volts		D4 3900	D3 4300	D2 4910	
44676	HD 156547	17 13.1	+26 00	22:37	23:57	0:46 W	+25 56	Fe/ND	12-12-
44677	HD 157702	17 19.7	+18 56	00:01	03:04	02⁴15 W	+18 55	Fe/ND	12-12-
44677 T1	spectral fn plate	44676-		15 min @ 15 Volts		D4 3500	D3 4300	D2	
44678	HD 197461	20 38.8	+14 43	03.09	03:19	00⁴50 E	+15° 01	Fe/ND	12-12
44679	HD 186791	19 41.5	+10° 22	03:27	03:33	00⁴22 W		Fe/ND	12-12
44679T	focus test							Fe/—	10-

Spectr. Temp. ...69°F..... Dome Temp./Hum. 15°C...85% Transparency Conditions ..clouds on off overhead.....

Focus .....498.....

Spectr. Temp. ...60°F..... Dome Temp./Hum. 12°C...89%

180

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	B.S	IIaO-E*	A			sl red
400/130	2-3	7.2	A0	"	"	B.S.	IIaO-E*	B	Am SB2 MR		fair
							IIaO-E*				
400/130		7.0	A1	B.C.	830/.68	B.S	IIaO-E	A	Am SB2 MR		fair
400/130		7.5	A0	"	"	BS	IIaO-E	B	Am SB MR	clouds on off	fair
							IIaO-E				
40/15		4.53		B.C.	830/.68	B.S.	IIaO-E	A	Am- MR		sl str
40/20	2-3	4.15	+3 III	B.C.	"	"	"	B	Sol 2nd		sl str
				"	"	"	IIaO-E	A		60°F 498	

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Wed - Thurs

Date June 4-5 /80 Observers W/r - Tn

Emulsion Batches:
IIaO-E 07119 - 07260
098-02E 20049 - 06050

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44680F1	Focus Test					0h	+25°	Fe/—	10-10
44680F2	Focus Test					0h	"	none	5/5
44680	HD 100889	11h31.5	-9° 15'	20h51m	20h56m	2h W	W -9°33	Fe/ND	7 7
44681	HD 100889	11h31.5	-9°15'	21h00	21h05m	2h7m W	-9°	Fe/ND	5/5
44682	HD 100974	11 32.2	+45°17'	21h40m	22h10m	3h20 W	+44°51'	Fe/ND No1—	4:4 4 4
44683	HD 168206	18h13m.5	-11° 40'	22h54	01h46m	0h05m W	-11 38	No1—	3-3 3-3
44683T1	Spot Calc	for 44680-81, 84			15 min @ 11V	D4 3990	D3 4390	ND	
44683T2	Spot Calc	for 44682-83			15 min @	15V D3 4810	70 D1 H&K	70 D3 5450	
44684	HD 168206	18h13m.5	-11°40'	01h53m	3h30m	1h53m W	-11 38	Fe/ND	3-3
44684F	Focus							Fe/—	3-3

Spectr. Temp. +53°F ..... Dome Temp./Hum. 60°F / 63% ..... Transparency Conditions ..Fine.....

Focus ..498 - 505 (42).....

Spectr. Temp. +56°F ..... Dome Temp./Hum. 50°F / 92% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	B			
				"	150/.5	LS	"	B			
30/10	3"	4.7	B9 I	"	150/.5	BS	IIaO-e	A	Wh. STD.	Exptime virtually identical for slit + slitless!	v sl nar
30/10	3-4"	4.7	"	"	150/.5	150/.7	"	B	" "	*	v sl nar
400/42		6.6	B9	"	400/.38	250/.3	098-02E	A	" HeBS	T=61°F	
500/?	4"	9.4	WC+	"	400/.38	250/.3	"	B	Wh. WR Prog.	Too faint for exp Mtn.	
							IIaO-e				
							098-02E			T=54°F	
500/?	4"	9.4	WC+	BC	150/.5	250/.3	IIaO-e	A	Wh Wr Prog	T=	
				"	"	250/1.0	IIaO	B		T=56°F set 50s	red
				* Cylindrical lens alignment completely off !							
				Was this at end of previous night							
				NO, just moved on spectrograph each night							

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Date ..June 8-9 1980.. Observers ..R.....
Sun Mon

Emulsion Batches:
IIaO-E 07119-03060
IIaJ-E 6 07119-16050 (20²)
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44685	HD 136202	15 19.2	+02° 09	21:57	22 33	00h08w	+01°53	Fe/ND	12-12
44686	HD 141513	15 44.4	−03° 07'	22 54	00:02	01h07w	−03° 20'	Fe/−	8-8-<
44686T1 ✓	spectral fn plate	44686		15min @		17.5 D4 3900	15 D4 4300	15 D4 4810	
44687	HD 157482	17 18 27	+40° 04'	00:11	02 31	02h04w	+40 00	Fe/ND	8-8-<
44687T1 ✓	spectral fn plates	44685, 44687-			15min @ 15 Volts	D4 3900	D3 4300	D2 4810	
44688	HD 186791	19 41.5	+10°22	02 40	02:59	00h07w	+10°36	Fe/ND	8-8
44688F1	focus test							Fe/−	88

Spectr. Temp. ...53°F..... Dome Temp./Hum. ...+07°C...75% Transparency Conditions . Good with some scattered clouds.....

Focus .....502.....

Spectr. Temp. ..... Dome Temp./Hum. ...+04°C...82%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/200	4-5	5.6	G0	B.C.	830/.68	B.S.	IIa0-E	A	SJ Vul	the marks line up on the cylindrical lens	OK
440/140		3.5	A0 V	BC	1200/ -.025	150μ/ .5	IIIa-Jb	B	SB-Bln	T=52°F, Set 599	strong
							~~IIIaJeb~~				
400/376	4 5	6.22	dK8	B.C.	1200/ -.025	150/5	IIa0 E	A	SB-Bl/Ly	clouds	v sl str
							IIa0-E				
80/45		4.15	K3III	B.C.	1200/ -.025	150/5	IIa0-E	B	SJ Vul	clouds	fine
				B.C.	1200/ -.025	150/5	IIa0-E	B		T 46°F SJ 599	

185 Nov/Dec

Date June 16/17 Observers MR-Ri

8m 69°

Emulsion Batches:
Tech-E 0719-03060 22 210
Tech-E 0719-05060 22 210

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
44689	HD 128092	14 29.9	+43 27	20 55	21:51	00h43w	+43°07	Fe/ND	12-12
44689F1	focus test							Fe/-	10-10
44690	HD 137782	15 19.5	+10°54	21:56	23 27	01h29w	+10°10'	Fe/ND	12-12
44690T1	spot cal for plates 44689 - 44691				15min@15Volts		D4 3900 D3 4300 D2 4810		
44691	+10 156547	17 13.1	+26°00	23.36	00:50	00h58w	+25°57	Fe/ND	12-12
44692	HD 176003	18 53.0	+44°05	00;56	01:57	00h26w	+44°15'	Fe/ND	12-12
44692T1	spot cal for plates 44692 - 44695				15min@15Volts		D4 3900 D3 4300 D2 4810		
44693	HD 188707	23 335	+41°57	02:08	03:05	03h07E	+42°25	Fe/ND	12-12
44694	HD 197461	20 38.8	+14 43	03.12	03:19	00h02w	+15°01	Fe/ND	12-12
44695	HD 209567	21 263	-06°01	03:28	03.32	00h33E	-05°37	Fe/ND	12-12
44695F	focus test							Fe/-	10-10

Spectr. Temp. ...60°F..... Dome Temp./Hum. ..10°C..72% Transparency Conditions ...good.....

Focus .....500.....

Spectr. Temp. ....51°F..... Dome Temp./Hum. ..07°C..77%

Shutters relined June 9-16

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/130		6.88	A2	B.C	830/68	B.S.	IIaO-E*	B	Am-MR	exp good. comp lines a little broad	
						B.S	IIaO-E*	A			sl red
400/130		7.19	A0	B.C.	830/.68	B.S.	IIaO-E*	A	Am MR		fine
							IIaO-E*				
400/130		7.04	A1	B.C.	830/.68	B.S.	IIaO-E*	B	Am-MR	55°F 501	fine
400/130		7.0	A1	B.C	830/.68	B.S.	IIaO-E	A	Am-MR		fine
							IIaO-E				
400/130		6.77	B9p	B.C.	830/.68	B.S.	IIaO-E	B	Ap-MR	52°F 502	v sl str.
40/15		4.53		B.C	830/.68	B.S.	IIaO-E	A	Am-MR		v sl str.
40/20		3.73	G0Ib	"	"	"	"	B	Sol Vel		v sl str.
				"	"	"	"	A		51°F 502	ok

187 Tue/Wed

Date June 17/18 Observers MR - Ri

E^m 58°

Emulsion Batches:
IIaO-E 07119-05060 22,206
vacuum shot IIaO-E 07119-17060 21,192

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44696F	focus Test							Fe/—	10-10
44696	HD 135679	15 11.3	+26 01	20:54	21:34	00^h13 E	+25° 46	Fe/ND	12/12
44697	HD 137182	15 19.5	+10° 54	21:38	22:36	00 42 W	+10° 40	Fe/ND	12/12
44697T1	spectral tn plates	44696-	44702		15min @ 15 Volts		D4 3900 4	D3 4300 4	D2 810
44698	HD 157702	17 19.7	+18 56	22:42	23:42	00 13 E	+18° 52	Fe/ND	12/12
44699	HD 156547	17 13.1	+26 00	23:47	00:23	00^h36W	+25° 58	Fe/ND	12/12
44700	HD 176003	18 53.0	+44°05	00 30	01:03	00^h24E	+44° 11	Fe/ND	12/12
44701	HD 190165	19 58.6	+45° 11	01:10	02:04	00^h38E	+45° 25	Fe/ND	12/12
44702	HD 202313	21 09.9	+30° 33'	02:10	03:22	00^h22E	+30° 55	Fe/ND	12/12
44702T1	spectral tn plates	44703			15min @ 15 Volts		D4 3900 4	D3 4300 4	D2 810
44703	HD 212943	22 22.8	+04 12	03:26	03:40	01^h16E	+04 37	Fe/ND	12/12
44703F	focus tst							Fe/—	10-10

22,206
21 192
/

Spectr. Temp. ...64°F..... Dome Temp./Hum. 15°C 74% Transparency Conditions . excellent .....

Focus .....499.....

Spectr. Temp. ...58°F..... Dome Temp./Hum. 11°C 82%

188

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	B.S.	IIaO-E	A			
400/150	2-3	6.67	B9	B.C.	830/.68	B.S.	IIaO-E	B	Mt.-MR		
400/130		7.19	A0	B.C	830/.68	B.S.	IIaO-E	A	Am-MR		
							IIaO-E				
400/130		7.48	A0	B.C.	830/.68	B.S.	IIaO-E	B	Am-MR (SB)		fine
400/130		7.04	A1	B.C	830/.68	B.S	IIaO-E	A	Am-MR SB2		fine
400/130	2-3	7.00	A1	B.C	830/.68	B.S	IIaO-E	B	Am-MR	620F	
400/130		7.58	A2	B.C.	830/.68	B.S.	IIaO-E	A	Am-MR		fine
400/150		7.56	B9	B.C.	830/.68	B.S.	IIaO-E	B	Ap-MR		fine
							IIaO-E*				
80/50		5.9	A0	B.C	830/.68	B.S	IIaO-E*	A	Std Vel		fine
							IIaO-E*	B		499 58°F	

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Date June 29/21 Fri/Sat Observers KK - FTn - Bts

Emulsion Batches:
4m 680 IIIaJ ob. 12108-11040
8m 680 IIaE 07119-17060

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44704F	focus test							Fe/—	30-30
44704	HD 174897	19 11.1	+19 42	20:47	20:48	0 17W		Fe/—	12-12
44705	HD 137909	15 23.7	+29 27	20:53	21:24	0 02E	X	Fe/—	8-8
44706	"	"	"	21:29	21:35	0 09W	X	Fe/ND	8-8
44706T	Spot calibration	15min @	① D4	17.5	39W	② D4 15V 4300	③ D4 15V 4810		
44707	HD 159561	17 30.3	+12 38	21:43	21 22:53 X	02 08E		Fe/—	8-8-8
44708	HD 161096	17 38.5	+4 37	22:01	22:05	02 04E		Fe, ND	12-12
44709	HD 8290 E	01 22.5	+88 46	22:34	01:30	07 00E		Fe/—	8-8
09T	Spot Cal for	44706, 08-		15min @	① D4 15V 3900	② D3 15V 4300	③ D2 15V 4810		
09F	focus test							Fe/ND4	20-20

Spectr. Temp. ...60°..... Dome Temp./Hum. ...57°F..... Transparency Conditions ...Clear.....

Focus .....500.....

Spectr. Temp. ...58°..... Dome Temp./Hum. ...53°F./89%

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Comparison/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	1200/.025	BS	IIIaJ eb	B			
	90/90	3"	1.29	K2IIIp	"	"	"	"	B	Std Vel.	G12 focus (5155) by eye	v s/wk
	40/115		3.93	F0p	"	"	"	"	B	Asm-Sp/KK		vs/wk
	115/30		"	"	"	"	"	IIaO	A	"	refocused to 197	
								IIIaJ eb				
	40/80		2.2	A5III	"	"	"	IIaJ eb	B	"	Redo IC	s/wk
	40/26		3.93	K2III	"	"	"	IIaO	A	Std. Vel		f
	200/107		2.9	F	"	830/.68	15μ/.3	IIaO	B	Asm-Sp/KK	F=500 T=60°	s/f
								IIaO				
						830/.68	"	IIaO	B		F=500 T=58°	
											Humidity was high 99% outside — cleared	
			This	back of	IIIaJ	in Vise					* plunger on grating tilt is not engaged.	

191

Date June 21/22 Sat/Sun Observers Bts

5m 68s

Emulsion Batches:
IV Nh. 05018 (1/15: 4m, 0)
IIaOe. 07119 - 17060

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44710	HD 8890 A	01h22m33s	+88°46m	23:10	23:42	08 53E		Ne/-	6-30-6
44711	"	"	"	23:55	00 20	08h 15mE		Ne/-	60-6-6
11T	Spot Cal for	44710/11		7½V @	① 7080 25min D3	② 7680 20min D3	③ 8½64		
44712	HD 8890 A	01h22m33s	+88°46m	00:35	01:08	07h 27mE		Ne/-	6-30-6
44713	HD 8890 B	01h22.8	+88°4.7	01:31	02:19	06h 15mE		Fe/UV7	8 8 8
13F	Focus							Fe/ ~~AHV~~	20-90

Spectr. Temp. ..68°..... Dome Temp./Hum. 67°F/80% Transparency Conditions . Some Haze, Scattered Cloud.

Focus .....497.....

Spectr. Temp. ...66°..... Dome Temp./Hum. 62°F/80% 192

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/300	2'	1.9v	F8	RC	830/.9	150μ/3	II-Na	A	GU	V filter F=497	comp wk sl sky
20/150		"	"	"	"	"	"	A	"		comp wk fine
20/200		"	"	"	"	"	"	A	"	clouds	comp wk v sl sky sl wk V narrow
		8.9	F	"	830/1.68	"	IaOe	B	KK	clouds removed V filter	
					"	50/.7	"	B		T=66° F=498	

193

Date 22/23 June '80 Observers [illegible] - R.

Emulsion Batches: 5m68 IIa-J 0.7119 - 1600 (20h)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44714	HD133749	15h 23m 9	+31° 42'	23 33	01 17	02° 03m	+31° 30'	Fe/-	3-5
44714T	spectral test plate	44714			15 min @	17.5 UO4 3900	15 UO4 4300	15 UO4 4810	
44714F	Focus test							Fe/	
	23 June								
44714F2	Focus test							FeNe/66	10-10
F3	Focus test							FeNe/66	30-30

Spectr. Temp. 70°F ..... Dome Temp./Hum. 67°F/22% Transparency Conditions Hazy/thin ..... Moon strength

Focus 494 .....

Spectr. Temp. 69°F ..... Dome Temp./Hum. 62°F/32% 194

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/	2"	1 0	23 m	BC	1200/-0.005	BS	IIIa-Jb	A	Bc-Bla	Cloud	fme
							IIIa-Jb				
				BC	1200/-0.05	BS	IIIa-Jb	B		T=69°F F=494	ok
				BC	830/.9	150	IV-Nh	A		68° 494	sl blue
				BC	830/.9	"	"	B			sl blue sl strong

125

Date June 23/24 Mon/Tue Observers MR - Ri

Tour & beginning of night showed saturn & moon 8m 68s

Dean Krueger & family

Emulsion Batches: IIaO E 0719 (20060)?

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44715 ✓	HD 141930	15 46.6	+44 49	21:55	23:08	01h 11W	+44°35	Fe/ND	12-12-1
44715T	spot and fn plates	44715 - 44720			15 min @	152 Volts	D4 3900	D3 4300	D2 4810
44716	HD 157702	17 19.7	+18 56	23:14	00:34	01h04W	+18 53	Fe/ND	12-12-1
44717	HD 156547	17 13.1	+26° 00	00:41	01:38	02h15W	+25° 57	Fe/ND	12-12-1
44718	HD 190165	19 58.6	+45° 11'	01:45	02:51	00h43W	+45° 28	Fe/ND	12-12-1
44719	HD 222207	23 33.5	+41° 57	02:58	03:43	02h00E	+42° 25	Fe/ND	12-12-1
44720	HD 204867	21 26.3	-06° 01	03:49	03:53	00h15W	-05° 36	Fe/ND	12-12-1
44720F	focus test							Fe/-	10-10
Stow	ft								
Lock	?								

Spectr. Temp. ...76°F..... Dome Temp./Hum. ..22°C/79%.. Transparency Conditions ..Good with a little haze....

Focus .....495.....

Spectr. Temp. ...74°F..... Dome Temp./Hum. ..~~20°C~~/77%..

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/130	2	7.57	A0	B.C.	830/.68	B.S	IIaO-E	A	MR-Am		
							IIaO-E				
400/130		748	A0	B.C.	830/.68	B.S.	IIaO-E	B	MR-Adj SB		
400/130		704	A1	B.C.	830/.68	B.S	IIaO-E	A	MR-Am		
400/130		7.58	A2	B.C.	830/.68	B.S	IIaO-E	B	MR-Am		
400/130		677	139p	B.C	830/.68	BS	IIaO-E	A	MR-Ap		
40/20		3.73	GoIb	B.C.	830/.68	B.S	IIaO-E	B	SJ VJ		
				B.C	830/.68	B.S	IIaO-E	B		74°F 495	

197

Tue/Wed

Date June 24/25 Observers MR-Ri

Emulsion Batches:
IIaa-E. 07119:17060....
IIaD-E. 07119:20069.
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~44721F~~ 44721 focus	focus test							Fe/-	10-10
44721,	HD 137182	15h 19.5m	+10° 54'	20:54	22:50	01h 22w	+10° 43	Fe/ND	12-12-12
44721T	spectral tri plate	44721-	44724		15 min @ 15 Volts		D4 D3 D2 3900 4300 4810		
44722	HD 156547	17 13 1	+26 00	22:55	01:04	01h 45w	+25 59	Fe/ND	12-12-12
44723	HD 176003	18 53 0	+44°05	01:10	02:07	01h 09w	+44°15°	Fe/ND	12-12-12
44724,	HD 222207	23 33.5	+41° 57	02 16	03:39	02h 01E	+42°26	Fe/ND	12 12 12
44724T	spectral tri plate 44725				15 min @ 15 Volts		D4 D3 D2 3900 4300 4810		
44725	HD 209 867	21 26.3	-06°01	03:44	03:53	00h 20w	-05° 35	Fe/ND	12 12 12
44725F1	focus test							Fe/-	10-10

Spectr. Temp. ..79°F..... Dome Temp./Hum. 25°C 13% Transparency Conditions ... hazy. slow. night.....

Focus .....494.....

Spectr. Temp. ..74°F..... Dome Temp./Hum. 21°C 84%

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Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A			no stellar
400/115	2-3	7.19	A0	B.C.	830/68	BS	IIaO-E	B	Am-MR, SB2		
							IIaO-E				
400/120		7.04	A1	B.C.	830/.68	BS	IIaO-E	A	Am-MR, SB2		
400/130	2-3	7.00	A1	B.C.	830/.68	BS	IIaO-E	B	Am-MR	76°F 495	
400/150		6.77	B9p	B.C.	830/.68	BS	IIaO-E	A	A0-MR		
							IIaO-E*				
40/20		3.73	G0Ib	BC.	830/.68	BS	IIaO-E*	B	Std 2A		
				B.C	830/.68	BS	IIaO-E*	B		74°F 495	

199

Date June 25-26/80 Observers Wh-R.i

Emulsion Batches:
8m 68' Tmax-R 07119-20060
5m 67' 098-01E 20019-06050

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44726	HD168206	$18^h 13^m.5$	$-11° 40'$	$21^h 20^m$	$00^h 20^m$	20^m W.	$-11° 35'$	Fe/ND	3-3-3
44726T ✓	spectral for plate 44726				5min @ 15Volts		D4 3500	D3 4300	D2 4810
44727	HD168206	$18^h 13^m.5$	$-11° 40'$	$0^h 44^m$	$3^h 17^m$	$3^h 00^m$ W	$-11° 35'$	Fe/ND Nel	4-4-4 4.4 4
44726F	focus test							Fe/—	3-3
44727T ✓	spectral for plate 44727				15min	15 Volts D3 4810	7 Volts D1 Hd	7V 5450	D2
44727F	focus test							Fe/— Nel —	66 16-16

Spectr. Temp. ...80°F..... Dome Temp./Hum. 23°C/72% Transparency Conditions ...hazy..... 200

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 20°C/86%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
—	3"	9.4	WC+	BC	150/.5	25/3	IIaOE	A	Wh.-WR.	80°F 500	fme
							IIaO-E	B		78°F	
—	3"	9.4	WC+	B.C.	400/.38	25/3	098E	B	Wh.-WR.	78° F V° filt 499	est wk
				BC	150/.5	25/3	IIaO-E	B		78°F 500	red
							098-E				
				BC	400/.38	25/10	098-E	A		76°F 499	

201

Date June 26/07 Observers RM-RC

Emulsion Batches: ~~I.N.E. 0711.9-25060~~ ....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
94728F	focus test							Fe/—	10-D
94728	HD 162506 = BY Her	17h 51.9	+26° 4	21h 26	22h 19	1h 31E	+26° 05	Fe/UV	12-12
94729	HD 136688 = SUGys	19h 40.0	+29° 01	22:35	00:32	1h 09E	+29 11	Fe/UV	12-12
94729T	Spot cal flow 4870Å			6	6	D3 +30V	D2 +30V		

Spectr. Temp. 80 Dome Temp./Hum. 22°C / 97% 90% outside Transparency Conditions .....

Focus 494

Spectr. Temp. 76°F Dome Temp./Hum. 21°C 90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.6	BS	IIaOE	B			
400/130		5.22	F2.5	"	"	"	"	B	Cep la/Evan		
2M/355		6.8-7.7	F2.5-G1	"	"	"	"	B	Cep la/Evan	clouds up getting to wet outside	

203

Date JUNE 30/JULY 1 Observers B.H. T.M. M.R.

8m 68° Emulsion Batches: IIaO 07119-25060

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~44730~~	HD 161096 (BOOM)	17 38.5	+04 37	2046	2052	02 30 E		FE/	18-16
~~44740 F~~	FOCUS TEST							FE/-	15-16
44731	HD 171182	15 19.5	+10 54	01 04	23 15	2 10 W	110 42	ND	12-10
44731 T ✓	Spot Calc for 44730	44730 -35			15min ea	1V D4 3900 × 00 42 W	D3 4300 +28 57	D3 4210 FE/ND	12-12
44732	HD 156547	17 13.1	+26 00	23 20	01 11	0135 W	+44 15		
44733	HD 176005	18 53.0	+49 05	01 16	02 16	01 58 E	+42 26		
44734	HD 222207	23 32.5	+41 57	02 16	03 19	01 17 E	+05 35		18-16
44735	HD 166368 (Hoo)	23 34.7	+05 05	03 23	03 30			FE/-	
44736 F	FOCUS TEST								

Spec
Focu
Spec

Spectr. Temp. 68° Dome Temp./Hum. 65° 48% Transparency Conditions ... Hazy ... 204

Focus ... 498 ...

Spectr. Temp. 63° Dome Temp./Hum. / 90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
[illegible]	1½	2.71	K2	BC	G1/1.68	B5	IIaF	A	STD VEL	} zero in spec	No stellar
							IIaJ	C		} no stellar - dry ground	
100/135	1½	7.09	A1	BC	G1/1.68	B5	IIaF	B	Am MR		fine but uneven
							"				
100/130	2"	7.04	A1	BC	G1/1.68	B5	"	A	Am MR	cloud	v sl str uneven
100/132		7.50	A1	"	"	"	"	B	"		v sl str
100/172	3"	6.93	B1	"	"	"	"	A	Am MR		v sl str
10/15	3"	7.03	F1	"	"	"	"	B	STD VEL		v sl str
							IIaJ	A		65C	weak

Comparison e/Filter Exc

205

Emulsion Batches: 8m 68m IIaO e 21060 IIaO e 26060

Date 2/3 JULY 1912 Observers [illegible]

ALL NEW CHEMICALS

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44736F	FOCUS TEST								
44736	HD 165174	17h 55m.5	+1° 37'	20:17	20 52	2 23 E	01° 40'		
44737	HD 165174	17h 59m.6	+1° 58'	20:57	21 40	01 56 E	01° 57'		
44737T	Spot Cals for 44736-43				15min @ KV	D4 3900	D3 4300	D2 4600	
44738	HD 165174	17h 55.6	+1° 55'	21 42	22 18	01 18 E			
44739	"	"	"	22 21	22 52	00 44E			
44740	"	"	"	22 54	23 32	00 04E			
44741	"	"	"	23 34	00 23	00 45W			
44742	"	"	"	00 24	01 07	01 29W	+1° 57		
44743	"	"	"	01 09	01 41	02 05W			
44744	"	"	"	01 42	02 20	02 45W			
44745	"	"	"	02 21	02 55	03 40W			
44745T	Spot Cals For 44744-46,				15min @ 15½	D4 3900	D3 4300	D2 4600	
44746	HD 165174	17h 59.6	+1° 58'	02 56	03 36	04 21W	+1° 57		

Spectr. Temp. 69°F ..... Dome Temp./Hum. 66°F/73% Transparency Conditions Excellent 206

Focus 497 .....

Spectr. Temp. 62°F ..... Dome Temp./Hum. 56°F/78%

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						BC	300/68	BS	IIIa-J	A		T=60°F F=49=	
B		400/3	3"	2.9	KvIII	BC	300/68	BS	II-OE	B	Sta Vel.		fine
		400/150	3"	6.1	OaIII	LC	230/68	ES	IIaO-E	A	Var-Elm		v sl str
									IIaO-E				
		200/150*	3"	6.1	OaIII	LC	830/68	BS	IIaO-E	B	Var Elm	*Seeing worse than expected. Exp Motor Voltage @ 110V	
		400/150	2-3"	"	"	"	"	"	"	A	"	Lenticular 1"/second	
		400/150	3-4	"	"	"	"	"	"	B	"	T=67°F	
		400/150	3"	"	"	"	"	"	"	A	"	Exposure Changed to 1 sec	
		400/150	5"	"	"	"	"	"	"	B	"		
		400/150	3"	"	"	"	"	"	"	A	"		
		400/150	3	"	"	"	"	"	IIaO-E	B	"		
		400/120	3	"	"	"	"	"	"	A	"	Cirrus Clouds	
									"				
		400/59	3	"	"	"	"	"	"	B	Var+Elm	Thin Cirrus	

207

$8^m\ 68^s$ Emulsion Batches: IIa-E 15040 -260.60

Date 24 JULY 1930 THURSDAY Observers O. C. T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44747	FOCUS TEST							F/-	22-2
44748	HD 165174	17h 57.6	+1° 55'	20:55	21 43	01 49 E	+1° 59'	F/ND	12-12-5
44748	"	"	"	21 44	22 15	01 17 E	"	"	12-12-6
44749	"	"	"	22 16	22 46	00 47 E		"	12-12-
44749T	Spot Calc for 44747-58				15min @ 15V	04 3900	03 4300	D/F 4210	
44750	HD 165174	17h 57.6	+1° 55'	22 47	23:19	00 19 W	+1° 59'	F/ND	"
44751	"	"	"	23 20	23:50	00 17 W	"	"	12-12-2
44752	"	"	"	23 51	00 25	00 52 W	"	"	12-12-
44753	"	"	"	00 27	00 54	01 22 W	"	"	12-12-4
44754	"	"	"	00 55	01 29	01 58 W	"	"	12-12-1
44755	"	"	"	01 31	02 12	02 41 W	"	"	12-12-1
44756	"	"	"	02 16	02 47	03 15 W	"	"	12-12-1
44757	"	"	"	02 53	03 26	03 54 W	"	"	12-12-1
44758	HD 203064	21 M.7	+43 31	03 30	03 36	00 51 W	+1° 53'	"	12-12-2

Spectr. Temp. 71°F ..... Dome Temp./Hum. 69°F / 68% Transparency Conditions . Cloudy (Patchy) .....

Focus ... 497 .....

Spectr. Temp. 66°F ..... Dome Temp./Hum. 63°F / 34% 208

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					2C	830/63	53	IIa-J	R		T=71°F [illegible]	sl red
	400/126	1½"	6.1	2" II	5C	830/63	53	IIa-0E	B	Var-Bl	Cloud	fine
	400/130	1"	"	"	"	"	"	"	A	"		
	400/130	1"	"	"	"	"	"	"	B	"		
								"				
	400/130		6.1	DI" II	2C	830/68	53	IIa-0E	A	V-Bl	Cloud	
	400/130		"	"	"	"	"	"	B	"	Cloud	fine
	400/130	1"	"	"	"	"	"	"	A	"		
	400/130	2"	"	"	"	"	"	"	B	"	cloud (broken spots)	doubtful
	400/130	2½-3"	"	"	"	"	"	"	A	"	(cloud) [illegible]	
	400/130	2"	"	"	"	"	"	"	B	"	T=167°F [illegible]	
	400/130	"	"	"	"	"	"	"	A	"		
	400/100	3"	"	"	"	"	"	"	B	"		ok
	40/15	2"	4.3	0" I	"	"	"	"	A	[illegible]		v sl str

207

Fri-Sat

Date July 4-5 1980 Observers Blo-Tn

Emulsion Batches:

8" 68° IIa-e 15010-26060

Plate No.	Star ↓ Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44758F	FOCUS TEST								
44759	HD165174	17h 59m 6	+1° 55'	20:59	21 47	01 42 E	+1° 59'		
44760	"	"	"	21 48	22 31	00 58 E	"	"	
44761	"	"	"	22 32	23 02	00 27 E	"	"	
44761T	Spot Calib for 44759 — 63				15 min @ 12V	D4 3900	D3 4300	D2 4840	
44762	HD165174	17° 59' 6	+1° 55'	23 04	23 29	00 01 W	+1° 59'		
44763	"	"	"	23 33	00 03	00 33 W	"	"	
	"	"	"	00 04				"	

Spectr. Temp. 73°F ..... Dome Temp./Hum 73°F / 77% . Transparency Conditions . Some cloud 210

Focus .... 4.96 .....

Spectr. Temp. ..... Dome Temp./Hum. 61°F / 37% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	330/68	BS	IIIa-J	B		F-4.96 T=73°F	ok
130	1"	6.15	III	BC	330/68	BS	IIa-0E	A	Var-Bl		(v sl uneven) exp fine
200/130	1"	"	"	"	"	"	"	B	"		"
400/130	1"	"	"	"	"	"	"	A	"		fine
							"				fine
400/130	2	6.15	III	BC	330/68	BS	IIa-0E	B	Var-Bl		fine
2/130	"	"	"	"	"	"	"	A	"	T=73°F	v sl uneven fine
4/	"	"	"	"	"	"	"	E	"	Cloud-	

21 2" Large Tess - No clouds by 6 hrs
Sat-Sun

Date July 5 6/82 Observers Pla-Ta

Emulsion Batches:
8m 680 Tri-X 1500-2606O
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44764	HD 165174	17 59.6	+1 55	23 37	00 30	01 07 W	+1 59'	Fe/ND	12-12
44765	"	"	"	00 31	01 22	01 59 W	"	"	12-12
44765T	Spot sol	for 44764 - 70			15 min @ 15A	W4 3900	D3 4200	D2 4810	
44766	HD 165174	17 59.6	+1 55	01 24	02 02	02 38 W			
44767	"	"	"	02 04	02 51	03 27 W	+1 59	"	12-12
44768	"	"	"	02 52	03 24	0400 W	"	"	12-12
44769	HD 203064	21 14.7	+43 31	03 28	03 43	01 05 W	+43 5	"	
44770	HD 222368	23 39.8	+5 05	03 48	03 59	0100 E		"	12-12
44770F	Focus Test							Fe/-	62

Spectr. Temp. 72°F ..... Dome Temp./Hum. 67°F/80% Transparency Conditions . gusty ... haze .....

Focus 19[illegible] .....

Spectr. Temp. 64°F ..... Dome Temp./Hum. 55°F/89%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
[illegible]/130	3-4"	6.15	[illegible]	BC	830/68	[illegible]	I-aOE	B	Var-Blu	T=72°F F=49%	fine
400/130	3"	"	"	"	"	"	"	A	"		v sl str v sl uneven
							"				
400/120		6.15	09.5 III	BC	830/68	BS	"	B	Var-Blu		fair v sl uneven
400/115 +?	4"	"	"	"	"	"	"	A	"	F=49%	fine v sl uneven
400/58	4"	"	"	"	"	"	"	E	"		sl wk
40/15		4.98	08V	"	"	"	"	A	Runaway		v sl str
40/17	5"	4.64	F7V	"	"	"	"	F	Solar		v sl str
				"	"	"	5-J	A		T=69°F F=49%	sl blue

213

Emulsion Batches:
8" 69° ..IIaO-e..15040-07070
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Date 4/7 Apr 1980 Observers [illegible]
Sun/moon

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44771F	Focus							Fe/—	26-26
44771	HD165179	17h 39m.6	+1° 55'	20 41	21 23	01 57 E	+1° 59'	Fe/ND	12-1
44772	"	"	"	21 29	22 04	01 16 E	"	"	12-12
44773 ✓	"	"	"	22 05	22 56	00 34 E	"	"	12-12
44773T	Spot Cals	for 44771—			15 min @ 15V	D4 3900	D3 4300	D2 4210	
44774	HD165179	17h 39m.6	+1° 55'	22 57	23 39	00 18 W	+1° 51'	Fe/ND	12-12
44775	"	"	"	23 40	00 27	01 06 W	"	"	12-12
44776	"	"	"	00 28	01 18	01 58 W	"	"	12-12
44777	"	"	"	01 20	02 12	02 52 W	"	"	12-12
44778	"	"	"	02 13	02 48	03 27 W	"	"	12-12
44779	HD200160	20 56.4	+47 08	02 52	03 01	00 45 W		"	12-12
44780	HD203064	21 14.7	+43 31	03 04	03 19	00 40 W	+43° 52'	"	12-12
44781	HD210839	22 08.1	+59° 55'	03 17	03 40	00 13 W	+59 19	"	12-12

Spectr. Temp. +67°F ..... Dome Temp./Hum. 66°F / 67% Transparency Conditions Excellent - some haze...

Focus ..498.....

Spectr. Temp. +63 °F ..... Dome Temp./Hum. 55°F / 77% 214

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIIaJ	A		T=67°F F=1°3	ok
400/130	1.5"	5.15	09.5 III	BC	830/.68	BS	IIIa-OE	A	Var-Blue		v sl str.
400/130	2.3	"	"	"	"	"	"	B	"		
400/130	2.4"	"	"	"	"	"	"	A	"		
							"				
400/130	3-5	6.15	09.5 III	BC	830/.68	BS	IIIa-OE	B	Var-Blue	T=65°F Sc 437	
400/130	3.4"	6.15	09.5 III	BC	830/.68	BS	IIIa-OE	A	Var-Blue		exp fini dust?
400/130	"	"	"	"	"	"	"	B	"		v sl uneven exp fini
400/130	"	"	"	"	"	"	"	A	"	T=64°	"
400/130	2"	"	"	"	"	"	"	B	"	clouds!	weak
80/30	1"	4.1	B1a					A	Blue Env	Cloud	v sl str dust on slit?
80/30	1-2	4.87	OB7					B	Blue	Cloud	"
400/170	2-3	5.27	OB+					A	Blue Env	Cloud	v sl str

215

Emulsion Batches:
IIa-e 15040-07070

Date July 8-9 Tues-Wed Observers But-T+

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44782F	Focus Test							Fe/—	12-1
44782	HD134897 (+1 Fog)	14 11.1	+19 42	20 35	20 36	01 12 W	+19 17	Fe/Neu	12-1
44783	HD137182	15 19.5	+10 54	20 47	22 57	02 25 W	+10 40	"	12-12
44784	HD157102	17 19.1	+18 5[illegible]	23 02	02 08	03 37 W	+18 55	"	12-12-1
44784T	Spot Sats	for 44782 → 86			15 min @ 15V	D4 3400	D3 [illegible]	D2 [illegible]	
44785	HD 222207	23 33.5	+41 57	02 13	03 21	01 25 E	+42 23	Fe/[illegible]	12-1
44786	HD 210839	22 08.1	+58 55	03 25	03 37	00 17 W	+59 18	"	12-12-1

Spectr. Temp. +72°F ..... Dome Temp./Hum. 70°F/82% Transparency Conditions . v.s.l.haze .....

Focus .....496.....

Spectr. Temp. +67°F ..... Dome Temp./Hum. 62°F/95% 216

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							IIaO	A			
40/16	1"	1.29	K2	BC	830/.68	BS	IIaE	A	STD VEL		v s/ STN
20/130	2"	7.19	A0	"	"	"	"	A	Am MR		
x/92	2"	7.48	Ac	"	"	"	"	B	"	some cloud T=71°F	
							"				
100/141	3"	6.77	B5	BC	830/.66	BS	"	A	Ap MR		
80/34	1.5"	5.29	O6	"	"	"	"	B	Runaway-Bl		v s/ STN

217

Date July 9-10 Wed/Thurs Observers Ria - Ri

Emulsion Batches:
IIaO-E 1.5040 - 08070
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44787F	Focus							Fe/—	12-12
44787	HD163526=S Her	17h51.4	+26°4	20 45	21h16	1h43 E	+26°05	Fe/ND	2-[illegible]
44788	HD160714=γ Oph	17h47.3	-06°07	21h25	23h32	0h37W	-06°08	Fe/ND	12-12-
44789 T ✓	Spot Calib	For 44787 - 44788			15 min @ 15 sec		DA DB DC 3[illegible]		
44789	HD 173369=ττ Aql	18h43=	+01°08	23h44	2h 13	2h01W	+01° 21	Fe/ND	12-12-[illegible]
44790	HD 186408=Sil Cyg	19h40.6	+29° 01	02 18	3h 30	2h 42W	+29°15	Fe/ND	12-12-[illegible]
[illegible]	HD 195295=ρ Cyg	20h30.2	+30° 2	03 33	3 44	3h 11W	+30° 18	Fe/ND	12-12-
44792	HD 222368	23°30.8	+5°05	03 49	3h 55	0h 47E	+5° 34	Fe/[illegible]	12-12+
44792F	Focus test							Fe/-	12-1
44792T	Spot calibration	2	Hα 7v	15m					
T2	" "	"	" "	"					
T3	" "	1	" "	"					

Spectr. Temp. ....70°F..... Dome Temp./Hum. 18°C/85% Transparency Conditions ...Good.....

Focus .....497.....

Spectr. Temp. ..66°F..... Dome Temp./Hum. 16°C/92%

218

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					830/.68	BS	IIaOE	A		497	v. slight
100/170	2-3	5.82	F2Ia	BC	830/.68	BS	IIaOE	B	Ceph/Evans		v sl str
200/300		7.01-7.83	F8Ib-G3Ib	BC	830/.68	BS	IIaOE	A	Ceph/Evans		fine
170/231		7.3-7.1	F8-K0	BC	830/.68	BS	IIaOE	B	Ceph/Evans		fine
90/105		6.8-7.7	F0-G1	BC	830/.68	BS	IIaOE	A	Ceph/Evans		fine
190/30		4.93	F5II	BC	830/.68	BS	IIaOE	B	Ceph/Evans		sl str
150/15		4.34	F7I	BC	830/.68	BS	IIaOE	A	Ceph/Evans		v sl str
				B.C.	830/.68	BS	IIaO-E	B		497 66°F	
							098 02				
							098.02e				
							IIIaFe				

219

8" 68°

Emulsion Batches: IIa-O: 17.15040 - 08070

Date Thurs. Fri. July 10-11 1950 Observers ...M.V.-R.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44793F	Focus							Fe/-	8-8
44793	HD 14710 β Com HD 126868	13 07.2	+28°23	20:54	21:08	2 56 W	+28° 00	Fe ND	8-8-8
44794	9 Virginis	14 23.0	−1°47	21:15	21:50	2 22 W	−2°05	Fe ND	8-8-8
44795	HD 153344	16 53.9	+62°16	21:56	23:15	1 20 W	+62° 10′	Fe ND	8-16
44795T	spec cal to plate	44793-	44799		15 min	@ 15 Volts	D4 3900	D3 4300	D2 4810
44796	16 Cyg A HD 186408	19 37.1	+50°18	00:55	01:42	1 00 W	+50°30	Fe ND	16-8
44797	HD 187923	19 47.4	+11°23	01:46	03:19	2 28 W	+11°37	Fe ND	8-8-8
44798	51 Peg HD 217014	22 52.5	+20°14	03:23	03:48	09 E	+20°45	Fe ND	8-8-8
44799	HD 222368	23 34.8	+5°05	3:51	4:04	35 E	+5°36	Fe ND	8-8-8

Spectr. Temp. ....75°F..... Dome Temp./Hum. 23°C./75% Transparency Conditions ....hazy/clear a.m. 1 then hazy again toward dawn

Focus .....495.....

Spectr. Temp. ..73°F..... Dome Temp./Hum. 20°C./91% 220

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	830/.68	120/1.0	IIaO-E	A		slight tilt center ok	
30/26	1-2"	4.8	G0	BC	830/.68	120/.5	IIaOe	B	Solar Type		v sl str
00/115	2"	5.5	G2	"	"	"	"	A	"		fine
00/ 8-	2"	7.8	G5	"			"	B	"	BROKEN 2 PIECES doubled out 1/2 exp.	
							IIaO-E				
30/233	2"	6.6	G2	B.C.	830/.68	120/.5	IIaO-E	A			v sl str
30/230	2"	6.7	G2	"	"	"	"	B	"		fine
100/58	2"	6.2	G5	"	"			A	"	comet on plate after dawn - doubled out 1/2 exp	fine
30/24	2"	4.6	F7	"	"	"		B	Std Vel.		v sl str

221

Date Sat-Sat..July 11-12.. Observers ..Fla-Ri.....

Emulsion Batches:
5" 69° Ilford..12.08.-11040....
8" 65° Ilford..15.11.-10970...
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44800 F	focus test							Fe/—	30-30
44801	HD 124897	14h 11.1	+19° 42'	20:40	20:42	1 26 W		Fe/ND	12-12
44801	HD 127909	15 23.7	+29 27	20:49	21:22	00 58 W	+29° 14'	Fe/—	8-8-8
44802	HD 135761	17 30.3	+12 38	21:27	21:37	00 53E	+12 37	Fe/—	8-8-8
44803	HD 8890 A	01 22.5	+8 46	22:02	22:09	07 08E		Fe/ND4	8-8-8
44804	HD 8890 B	01 22.5	+8 46	22:22	01:54	05 20E		Fe/ND4	8-8-8
44805T	spectral tr plates	44800-	49802		15min @	17.5V. D4 3500	150 D4 43m	15V D4 4810	
44805T2	spectral tr plates	44803.	44807		15min @ 15 Volt	D4 3900	D3 4500	D2 4810	
44805	HD 136791	19 41.5	+10 22	2 08	2:18	01 43 W	+10° 35'	Fe/ND	8-8-8
44806	HD 206901	21 45.7	+25 11	2:31	3:01	00 21W	+25 36	Fe/ND	8-8-8
44807	HD 222668 + Fec.	23 34.8	+5 05	3:05	3 35	00 59E	+5 36	Fe/ND	8-8-8
44807F	focus test							Fe/—	30-30

Spectr. Temp. 77°F ..... Dome Temp./Hum. 74°F / 70% Transparency Conditions clear - partly cloudy .....

Focus ... 492 .....

Spectr. Temp. 65°F ..... Dome Temp./Hum. 57°F / 76%

222

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						RC	1200/-0.025	BS	IIIaJeb	A			sl blue
		20/50		1.29	K2IIIp	"	" "	"	IIIaJeb	B	STD VEL		
		45/130		3.93	F0p	"	" "	"	IIIaJeb	A	Hsm-Sp/KK		fine
		40/110		2.2	A5III	"	" "	"	IIIaJeb	B	Hsm-Sp/KK		fine
		40/15		1.99	F8	"	830/.68	150/.5	IIaO-b	A	Hsm-Sp/KK	Set F=415 Temp 75°F ; fin	v sl str comp sl str
		50/—	3-4	8.9	F	"	830/.68	150/.3	IIaO-b	B	" "	do. b	exp ok sl. flox.
									IIIaSeb				
									IIaO-k				
		80/24		4.15	K2II	"	830/.68	150/.5	IIaO-e	A	STD VEL.	T=68°F, Set F=417 clouds	v sl str comp. str
		80/60		4.17	F5IV	"	1200/-.025	BS	IIaO-e	B	Hsm-Sp/KK	T=67°F, Set F=415. clouds	v sl strong very strong
		80/60		4.13	F7V	"	" "	"	IIaO-e	A	STD VEL	clouds	fine
						BC	1200/-.025	BS	IIIaJeb	B		T=65°F F=415.	v sl strong comp sl weak

223 7 Tours,

Date Sat-Sun May 12-13 Observers BK - Ri

Emulsion Batches:
IIaO-E 15040 : 19070
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44808	HD 146361	16 10·9	+34 07	23 08	23 38	2 30 W	+33 58	Fe/ND	8-8-8
44807 ✓	spectral tr plates	44808 - 44816			15 min @ 15 Volts		04 3900	P3 4300	P2 4810
44809	HD 146362	16 10·9	+34 07	23 39	0 39	3 32 W	+33 57	Fe/ND	8-8-8
44810	HD 146361	16 10·9	+34 07	23 40	1 14	4 06 W	+33 58	Fe/ND	8-8-8
44811	HD 187849	19 47·0	+38 27	1 20	1 54	1 10 W	+38 44	Fe/ND	8-8-8
44812	HD 187691	19 46·2	+10 10	1 58	2 21	1 38 W	+10 24	Fe/ND	8-8-8
44813	HD 209166	21 56·2	+12 38	2 25	2 58	0 05 W	+13 07	Fe/ND	8-8-8
44814	HD 218634	23 04·5	+8 09	3 00	3 38	0 23 E	+8 37	Fe/ND	8-8-8
44815	HD 203504	21 17·5	+19 23	3 40	3 54	1 40 W	+19 48	Fe/ND	8-8-8
44816	HD 222368	23 34.8	+05 05	3 57	4 06	0 26 E	+5 34	Fe/ND	8-8-8
44816F	focus test							Fe/-	10-10

Spectr. Temp. ..67°F..... Dome Temp./Hum. ..21°C/..78%.. Transparency Conditions ..excellent.....

Focus .....498.....

Spectr. Temp. ..69°F..... Dome Temp./Hum. .....14°C/.....82%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
450/120	2	6.2	F8 V	B.C.	830/.68	150/.5	IIaO-E	A	Waterloo		
							IIaO-E				
400/120		7.3	G1 V	B.C.	830/.68	150/.5	IIaO-E	B	Waterloo		
400/120	3	6.2	F8 V	B.C	830/.68	150/.5	IIaO-E	A	"		v sl str
400/200		6.9	M2 III	B.C.	830/.68	150/.5	IIaO-E	B	"		fine
400/120		5.6	F8 V	B.C.	830/.68	150/.5	IIaO-E	A	"		v sl str
100/120	3-4	5.9	F1 IV	B.C	830/.68	150/.5	IIaO-E	B	"		v s/str
400/250		6.6	M2	B.C.	830/.68	150/.5	IIaO-E	A	"		fine
200/30		5.2	K1 III	B.C.	830/.68	150/.5	IIaO-E	B	"		s/str
40/.2		4.6	F7 I	B.C	830/.68	150/.5	IIaO-E	A	Std Vul		s/str.
				B.C.	830/.68	150/1.0	IIaO-E	B		64°F 498	

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Date Sun. Mon. July 13-14 Observers Rm-Ri

8" 68° Emulsion Batches: IIaO-E. 15040-13070

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44817F	focus test							Fe/—	12-12
44817	HD 163506	17 51.5	+26°04	20:43	21.10	01 33E	+26°05	Fe/ND	12 12 12
44818	HD 162714	17 47.3	-06° 07	21.17	23:05	00 25W	-06°07	Fe/ND	12-12-2
44818T	spectral ln plate 44817		-0.7Z		15min @ 15 Volts		D4 3900	F3 4300	D2 4010
[illegible]	HD [illegible]	[illegible]	+17°14	23 09	23:44	00 02E	+17°23	Fe/ND	12-12
[illegible]	HD [illegible]	[illegible]	[illegible]	23h 30	00 26	00 17E	+16°38	Fe/ND	12-12
[illegible]	HD [illegible]	[illegible]	[illegible]	00 31	1h 32	00 59W	+29°15	[illegible]	12-12
[illegible]	HD [illegible]	[illegible]	+37°49	01h 35	2:09	0 02W	+38° 11	[illegible]	12-12
[illegible]	HD [illegible]	19h 17.4	-00°45	02 12	2 35	1h 55W	+00 58	[illegible]	12-12
[illegible]	HD [illegible]	21h 12.3	+30 47	02 40	3:13	1h 19W	+31° 07	Fe/ND	12-12
[illegible]	HD 195 [illegible]	20h 25.3	+30°02	03 16	03 26	2 09W	+30°19	Fe/ND	12-12
[illegible]	HD [illegible]	23h 38.3	+5°25	03 31	03 34	0 53E	+5 32	Fe/ND	12-12
[illegible]	HD [illegible]	17h 12.0	+27°45	03 38	04 07	04 04W	+27 57	Fe/ND	12-12
44825T	Focus test							Fe/—	12-12

Spectr. Temp. ...73°F..... Dome Temp./Hum. ..21°C../..70%.. Transparency Conditions ...excellent.....

Focus .....496.....

Spectr. Temp. ...67°..... Dome Temp./Hum. ...10 C../..83%..

Comparison /Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						B.C.	830/.68	B.S.	IIaO	A			
		100/170	3	5.82	F2Ia	B.C.	830/.68	BS	IIaO-E	B	Capt/Evans	BROKEN 2 PIECES	
		100/300		7.01 7.83	F8Ib G3Ib	B.C.	830/.68	B.S.	IIaO-E	A	"		fine
									IIaO-E				
		100/300		5.95-6.10	CF5-CF7	BC	830/.68	BS	IIaOE	B	Capt/Evans		sl. strong
		100/300	2	5.87-7.14	F2-F5	BC	830/.68	BS	IIaOE	A	Capt/Evans	Spect Temp=72°	sl strong
		100/150	2	6.87-7.06	F8-G1	BC	830/.68	BS	IIaO-E	B	Capt/Evans		v sl strong
		100/300	2	5.91	F2	BC	830/.68	BS	IIaOE	A	Capt/Evans		strong
		100/300		4.08-5.94	F5-F8	BC	830/.68	BS	IIaOE	B	Capt/Evans		strong
		100/150		6.06-6.42	F5-F8	BC	830/.68	BS	IIaOE	A	Capt/Evans		strong
		100/300		4.43	F5-F8	BC	830/.68	BS	IIaOE	B	Capt/Evans		sl str.
		100/150		4.64	F7-F8	BC	830/.68	BS	IIaOE	A	Capt/Evans		Fine
		100/150		6.37	F8-G1	BC	830/.68	BS	IIaOE	B	Capt/Evans		fine
						BC	830/.68	BS	IIaOE	A			

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Emulsion Batches:
IIaF 15040-13070

Date [illegible] Observers [illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44828	HD 181096 (BOAH)	19 38.5	+04 37	23 38	23 45	+0122 W	+04 37	F-/ND	12-12-12
44829	HD 174003	18 53.0	+44 05	23 51	00 33	+0056 W	+44 15	"	12-12-12
44829T ✓	spectral fn plate	44828-				15mm a	154 cts	D4 D3 D2 3500 43 4510	
44830	HD 190115	19 58.6	+45 11	00 38	01 50	+0108 W	+45°27	F-/ND	12-12-12
44831	HD 224207	23 32.5	+41 51	01 57	01 54	-0120 E	+42°45	"	12-12-12
44832	focus test							F-/-	12m

Spectr. Temp. ...76°F..... Dome Temp./Hum. 23°c / 95% Transparency Conditions HAZY.....

Focus .....19.5.....

Spectr. Temp. .....76°F..... Dome Temp./Hum. .22°c/..40%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00 / 100		2.77	K2 II	BC	830 / .66	BS	IIaO	A	STD VEL		fine
00 / 130		7.00	A1	"	"	"	"	B	Am MR		good
							IIaO-E				
0 / 300		7.58	A2	B.C.	830 / .68	BS	IIaO-E	A	Am - MR		good
0 / 150		6.77	B9p	"	"	"	"	B	A2 - MR		fine
				BC	830 / .65	BS	IIaO	A		done with	v sl red

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Emulsion Batches:

Date ..... Observers .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44832 F	Focus Test								
44833	HD 186427	19° 5'	+50° 17'	20 : 35	21 29	2 45 E	+50° 30'	F/no	120
44833	"	"	"	21 30	22 29	1 45 E		"	10-F-10
44833T1 ✓	Spot Calc for	44832, 37			15 min @ 15V	D2 3900	D3 4300	D3 4810	
44833T2 ✓	Spot Calc for	44833, 38,			15 min @ 15V	"	"	"	
44834	HD 186427	19 3.2	+50 17	22 37	23 24	0 10W	50 31	F/no no—	6-6 6-6
44834T ✓	Spot Calc for	44834-36.			15 min @ 15V D3 4810	7h D1 H2	7h D2 5450		
44835	HD 432	00 03.8	+58 36	02 31	02 37	02 04 E		F/no No—	9-9 9-9
44836	HD 4826	01 16-1	+59 19'	02 41	03 [illegible]	03 01 E		F/no No—	7- 9-
44837	HD 7826	"	"	03 13	03 21	02 46 E	+41° 13'	F/no	18-18
44838	HD 7826	"	"	03 22	03 30	02 37 E	"	"	18-18
44839	HD 3651	00 34.2	+20 43	03 33	04 07	01 04 E	+21 11	F/no	10-12-10
44840	HD 432	00 03.8	+58 36	04 11	04 14			"	5-18
44841	"	"	"	04 15	04 16	00 23 E		"	2-18

Spectr. Temp. 74°F ..... Dome Temp./Hum. 72°F / 39% Transparency Conditions . Slt haze ... mtn. clouds .....

Focus . 475 .....

Spectr. Temp. ..... Dome Temp./Hum. 65°F / 100% 230

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							IIa-0e	A		F=47°F T=74°F	sl red
200	1-3"	336	5-I	BC	330/.68	RS	IIa-0e	A	Bin-Std	16 Cyg B Box #1	fine
200	2"	"	"	"	"	"	"	B	"	Box #2	v sl str
							"			Box #1	
							"			Box #2	
400/700	2-3"	6.8	GE	BC	1200/.7	RS	0.8-2E	A	Bin-Std	cloud	
							0°C-2E				
40/80		V= 226	PDE-m	BC	1200/.7	RS	0°C-2E	B	Bin-Std	T=63°F	strong
40/80		"	"	BC	"	AS	"	A	"		
10/20	2	"	"	BC	330/.68	RS	IIa-0E	B	"	Box #1 F=47° T=63°F	v sl str
40/20		"	"	"	"	RS	"	A	"	Box #2	v sl str
20/40	3"	530	HDE	"	"	"	"	B	"	Box #1	fine
40/80		246	PDE	"	"	"	"	A	"	Box #1	sl str
10/20		"	"	"	"	"	"	B	"	Box #2	sl str
						K					

231

Date 1980 July 12/13 Sun-Sun Observers KK / Tn

Emulsion Batches:
IIa-O 15046 - 11070
IIa-E - 21000

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44842	HD 137909	15 23.7	+29 27	22:47	23 51	3 58W	+	Fe/ND	10-20
44843	HD 172167	18 33.5	+38 41	23:55	23 56	0 53W		Fe/ND	20-30
44844	HD 159561	17 30.3	+12 36	00 03	00 44	2 44W		Fe/—	15-20
44844T	Spot Cal for 44844				17.5V 15 min @ D4	12V 29.0 43.5	15V 19.0		
44845	HD 186791	19 44.5	+10 22	00 47	01:15	1 07W		Fe/ND	15-15
44845F	Focus Test							Fe/—	20-20

Spec
Focus
Spect
Exp M

Spectr. Temp. 80°F ! Dome Temp./Hum. 76°F / 95% Transparency Conditions haze & scattered cloud

Focus 421

Spectr. Temp. 78° Dome Temp./Hum. 73° /

232

Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	30/60	1-2"	3.93	F0p	BC	1200/-.025	BS	IIaO c	B	Asm-Sp/ICK	cloud	fine
	40/20	1"			"	"	BS	IIaO-p	A	"	αLyr	v sl str
	40/110	1"	3.2	A5A	"	"	"	IIaJ-eb	A	"	+Sph	hipp & some str sl weak
								IIaJeb				
	30/50	1"	4.15	F2II	BC	1200/-.025	BS	IIaO-o	B	Vpel		v sl wk
					"	"	"	098	B			sl blue

Comparison Exp/Filter Exp

233 Wed-Thurs

Date ..July 23/24..... Observers ...Wh./J.M.....

Emulsion Batches:
..II.a-E....15070 - 14[illegible]
..098:C....[illegible] - 18[illegible]
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44845	Focus Test							Fe/—	10-6
44846	HD 192103	20h 8.1	+35° 54'	21h 12m	23h 00m	1h 21m E	36° 10'	Fe/ND	3 3 3
44846T	Spot Calc for 44846			15min @ 15V		D 39.0	D3 4.00	D3 4.00	
44847	HD192103	20 8.1	+35 54	23 10	01 05	0h 44 W	36 10'	Fe/ND NiO/—	4-4 4-4
44847T	Spot Calc for 44847-49			15min @ 15V	23 45.0	39.01 ND	39.00 5.50		
44848	HD192163	20h 8.4	+38° 3'	01 12	2h 09m	1h 48m W	+38° 20'	Fe/ND Ni/—	4-4 4 4
44849	HD192641	20h 10m.8	+36° 21'	02h 17m	4h 00m	3h 40m W	+36 37	Fe/ND Ni/—	4 4 4 4

Spectr. Temp. ..+72°F..... Dome Temp./Hum. 67°F/77% Transparency Conditions ... Fine.....

Focus .....502.....

Spectr. Temp. 166°F..... Dome Temp./Hum. 61°F/87%

234

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
			1	BC	120/.5	2mm	092	B			red
—	3"	8.4	WC+	BC	150/.5	250μ	IIaOe	A	Wh-WR		cl strong
							IIaO-C				
—	3"	8.4	WC+	BC	400/.38	250μ/.3	098e	B	Wh-WR	K.K. what's some of these a record of comp. of stars to to focus? why.	fine
							"				
—	3"	7.7	WN	BC	400/.38	250μ/.3	"	A	Wh-WR		fine
—	3"	8.1	WC+	"	"	"	"	B	"	Set 503 T 77F	fine
							KK				

235

Date 24/25 July 1980 Observers Bln. Tn

Emulsion Batches:
098-02E 07119 - 18070
Tio-c 15090 - 20070

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44850F	Focus Test							Fe/ND Ne/—	10-10 10-10
44850	HD 186927	19h 39m 2s	+50° 17'	20 29	00 10	00 22 W	+50° 30'	Fe/ND	6-6-6
44850T	Spal Calc G.	44850			15m @ 9	15V D3 4E10	7V D1 Hα	7V D1 54E3	
44851	HD 217754	22 57.8	+31 14	00 35	02 07	01 00 E	+31° 42'	Fe/ND	12-12-12
44851T	Spal Calc G.	44851-52			15m @ 15V	1D4 3900	D3 4300	D3 Fe/ND	
44852	HD 3651	00 31.2	+20 43	02 12	04 01	00 42 E	+21° 12'	Fe/ND	12-12-12

Spectr. Temp. 71°F ..... Dome Temp./Hum. 72°F/49% Transparency Conditions Fine - thin cloudy .....

Focus 334 .....

Spectr. Temp. 69°F ..... Dome Temp./Hum. 63°F/91% 236

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1600/0.7	RS	098-02	A		T = 73° F = .734	
-00/700	1"-2"	0.86	G5V	BC	1600/0.7	RS	093-05	B	Std - Blu	Hz - Sun & Star	v sl str.
							098-05				
400/174	2-4	675	F2D	BC	830/.68	BS	IIa-0E	A	Std - Blu	F = 49 L T = 72° F	fine
							IIa-0E				
200/	2"-4"	5-01	F0V	BC	830/.68	BS	IIa-0E	B	Std Blu	some cloud F = 49 L	v sl str.

237

Date 30/31 JULY 1900 (1900, Tues) Observers Fej.-Ri.

Emulsion Batches:
098-028 & 18070
07119

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44852F	FOCUS TEST							Fe/ND Na/—	10-10 10-10
44853	HD 149757	16h 31.5m	-10° 22	20h 24m	20:49	00 32W	-10-30	Fe/ND Na/—	6-6 6 6-6 6
44854	HD 200120	20h 56.4	+47° 08'	20h 58	22.49	01 51E	+47° 28'	Fe/ND Na/—	6-6 6-
44854T1	spectral fm plate 44853				15min	15U D3 @ 4810	7U D1 Hα	7U D2 5 4 50	
44855	HD 217754	22h 57.8	+31° 14'	23:03	02.12	00.30E	+31° 42	Fe/ND Na/—	6-6- 6 6-
44856	HD 3651	0h 34.2	+21° 1	02:16	04.17	01.01E	+21° 09	Fe/ND Na/—	6-6- 6-6-
44856F	focus tx							Fe/ND Na/—	10-10 10-10

Spectr. Temp. 73°F ..... Dome Temp./Hum. 21°C 84% Transparency Conditions Good .....

Focus 494 .....

Spectr. Temp. 68°F ..... Dome Temp./Hum. 17°C 86% 738

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/0.7	150/1.0	098-02E	A		T=73°F F=494	
40/90		2.5%	09.5V	BC	1200/0.7	150/1.5	098-02E	B	Bc-Bln	Comp	
400/800	3	4.5%	B/c	B.C.	1200/0.7	150/1.5	098-02E	A	Bc-Bln		Fine
							098-02E				
800/2000	2-3	6.7%	F2IV	B.C.	1200/0.7	150/1.5	098-02E	B	Bln-Std	T	Fine
40/2000		6.7	K0V	BC	1200/0.7	150/1.5	098-02E	A	Bln-Std	T=70°F F=49	
				BC	"	150/1.0	098-02E	B			

239 New HV supply

Date ... Observers ...

Emulsion Batches:

D19 8mi 68% ... 02070 17
D19 5mi 68% ... 24060 .. 02070 21 22

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
				21 53	22 22				
✓ 4486.15	spectral trip std	4483.458	60–67				3900	D3 4300	D2 4.3
	HD 215[illegible]					03 25 E	+ 30 10		
	HD 88[illegible] A	01 [illegible]	+89 46	23:10	23:12	06 41 E	+89 12		
	HD [illegible]	01 [illegible]	+89 46	23:[illegible]	02 18	03 33 E	89 [illegible]		
✓ 4486.17	spectral			15min	17.5 04 3900		D4 150 4300		
4486.05	HD 217675 [illegible]	[illegible]	[illegible]	02:27	02:40	00 07 W	+42° 15		
4486.06	HD 217682	22 55.0	142 13	02:44	02:55	00 22 W	+42 42		
4486.07	[illegible]	23 34.8	+65 05	02:02	03:13	00 30 W	+65° 35		
4486.08	[illegible]								

Spectr. Temp. 77°F ..... Dome Temp./Hum. 75°F/92% Transparency Conditions partly cloudy, hazy, humid, haze.

Focus 492 .....

Spectr. Temp. 75°F ..... Dome Temp./Hum. 76°F/92% 240

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				3C	[illegible]	120/1.0	IIaO	A			
[illegible]		2.93	40p	"	"	120/.5	"	B	[illegible]	Clouds	Fine
50/47		[illegible]	[illegible]	"	"	120/.5	"	A	[illegible]	[illegible]	Fine
40/130		2.2	A5 III	"	" "	150/.5	IIaJ+b	B	[illegible]	[illegible]	"
[illegible]		3.32	[illegible]	"	" "	[illegible]	[illegible]	A	[illegible]	"	Fine Hazy
[illegible]		[illegible]	[illegible]	"	[illegible]	120/.5	[illegible]	A	[illegible]	"	Fine
							IIaO-E				
40/120		[illegible]	[illegible]	"	[illegible]	[illegible]	IIaO	A	[illegible]	[illegible]	Fine
40/15		1.19V	F8	"	330/.59	[illegible]/.5	IIaO	E	" "	[illegible]	Str
30/—		2.9	F	"	" "	150/.3	IIaO	A	" "	cloud cloud of exposure	blank
							IIIaJb				
32/27		[illegible]	B6p	"	[illegible]	150/.5	IIaO	E	" "	clouds	Fine
200/5		[illegible]	A2	"	" "	150/.5	IIaO	A	" "	"	Fine
100/124		4.6	F7 V2	"	" "	[illegible]	IIaO	E	STR VEL.	"	Fine
				"	" "	[illegible]	"	A		[illegible]	

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Date Aug 3-4 Sept-Mt Observers R.

Emulsion Batches:
Tau-E 15040-01080 21 193
098-02E 07119-02080 23 187

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44868F	Focus test							Fe/-	4-4
44868	HD 190918	20 02	+35° 31	20: 32	21: 02	2h 29 E	+35° 46	Fe/ND	3-3-3
44869	HD 192163	20 8.4 10.7	+38° 3 12 3	21: 10	21: 40	1h 57 E	+38° 20'	Fe/ND	3-3-3
44870	HD 192163	20 8.4 10.7	+38° 3 12 3	21: 50	22: 35	1h 01 E	+38° 20'	Fe/ND Ne/-	4 4 4 4 4 4
14x20 ✓	spectral template V444C,H	44868+69, 72-74			15min @ 15	Volts L4 3900	D3 4300	D2 4810	
44871	HD 193576	20 15.8	+38° 25	22. 53	00. 53	01h 08 W	+38° 41	Fe/ND Ne/-	4 4 4 4 4 4
44871 ✓	spectral template	44870+44871			15min @	15V D3 4810	7V D1 Hd	7V D2 5450	
44871F	focus test V444C,G							Fe/- Ne/-	66 10 7
44872	HD 193576	20 15.8	+38° 25	01: 03	02: 33	02h 49 W	+38° 41	Fe/ND	3-3-
44873	HD 192691	20 10.8	+36° 21	02. 40	04: 10	04h 31 W	+36° 37	Fe/ND	3-3-3
44874	HD 222368	23 34.8	+05° 05	04. 16	04. 20	01h 16 W	+05° 33	Fe/ND	5-5
44874F	focus test							Fe/-	4-4

Spectr. Temp. ...76°F..... Dome Temp./Hum. 70°F..81%... Transparency Conditions ....good.....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..64°F..82%... 242

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	150/.5	150/1.0	IIaO	A		T76°F 501	
400/ 50	2-3	7.4	WN+	B.C.	150/.5	250/.3	IIaO-E	B	Wh-WR	Fold down	bad Focus or Flexure
400/ 71	3-4	7.7	WN+	B.C.	150/.5	250/.3	IIaO-E	A	"		"
400/ 63		"	"	"	400/.38	250/.3	098-02 E	B	"	"V" Filter T75°F 500	Fe str. Focus
							IIaO-E				
400/ 103	2-3	8.3-8.6	WN5.5 + 06	B.C.	400/.38	250/.3	098-02 E	A	Wh-WR	"V" Filter Focus?	Fe str Fine
							098-02 E				
				B.C.	400/.38	250/1.0	098-02 E	B		T70°F 500	
400/ 282	3	8.3-8.6	WN5.5 + 06	B.C.	150/.5	250/.3	IIaO-E	A	Wh-WR	T70°F 503	Flex
400/ 266	3-4	8.1	WC+	B.C.	150/.5	250/.3	IIaO-E	B	" "		Flex
400/18		9.64	F7V	B.C.	150/.5	150/.7	IIaO-E	A	Std Wedge		Fine
				B.C.	150/.5	150/1.0	IIaO-E	B		T68°F 503	

243

Mon Tues

Date Aug. 4.-5. 1950 Observers MR.-Ri./Rqi.-Ri.

Emulsion Batches:
Tav-E. 15040-01080 20 191
OK-DVE. 07119-02080 23 158

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
44875	HD 157702	17h 19.7m	+18° 56'	20:22	21:27	0h 42m W	+18° 54'	Fe/ND	12-12-5
44875F	focus test							Fe/—	12-12
44876	HD 156547	17 13.1	+26 00	21:31	22:27	0h 48m W	+26° 00	Fe/ND	12-12-1
44876T	spectral fn plate 44875-78			15 min	@ 15 Volts	D4 3900 D3 4300	D2 4810		
44877	HD 176003	18 53.0	+44 05	22:32	23:07	0 50 W	+44 15	Fe/ND	12
44878	HD 190165	19 58.6	+45 11	23:12	00:29	1 06 W	+45 27	Fe/ND	12-12-
44879	HD 432-BCol.	0h 3.8	+53° 36	00:40	00:45	2h 44 E	+59 02	Fe/ND Ne/—	9 - 7 -
44880	HD 3651	0h 34.2	+20° 43'	00:51	03:24	0h 35 E	+21 12	Fe/ND	
44880T	spectral fn plate 44879-			15 min	15V D3 4810	7V D1 Hd	7V 54	D2 56	
44880F	FOCUS TEST							Fe/ND Ne/—	

Spectr. Temp. ...7.5°F..... Dome Temp./Hum. ..70°F...84% Transparency Conditions .good...finish.....

Focus .....4.95.....

Spectr. Temp. ...63°F..... Dome Temp./Hum. .....64°F 99% 244

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
450/130		7.48	A0	B.C.	830/.68	B.S.	IIaO-E	B	Am-Md	15 vs/	wk(GK) s/wk
				B.C.	830/.68	B.S	IIaO-E	A		T75°F 495	
400/130		7.04	A1	B.C	830/.68	B.S	IIaO-E	A	Am-MR		s/wk
							IaO-E				
400/130		7.00	A1	B.C	830/.68	B.S.	IIaO-E	B	Am-MR		s/wk
400/130		7.58	A2	B.C.	830/.68	B.S.	IIaO-E	A	Am-MR		wk
70/80		2.6	F2V	B.C	1201/.7	R.S	098-02E	B	Std-Bl	T 70°F 495	st.
400/457		6.7	K0I	BC	1201/.7	K.S	IIaO-E	A	Std-Bl	CLOUDS	s/wk
							098-02E				
				BC	1201/.7	RS	098-02E	B		T68°F 495	

245

Wed Thurs

Date Aug. 6-7 Observers L. T.

Emulsion Batches: 33 Z3

W.a.J.E. 24080 1640

D.a.Q.E. 1.5.040 - 01080 18 171

D.a.Q.* 1.5040 - 05070

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44881	HD138749	15 28.9	+31 42	20:18	20.58	02 11W	+31 28	Fe/-	10-10
44882	HD141513	15 44.4	-03 07	21:02	21:38	≈0237W	-03 20	"	"
44883	HD149757	16 31.6	-10 22	21:42	21:59	02 09W	-10 22	"	"
44884	HD157482	17 48.5	+40 04	22:04	23:52	W	+39 59	Fe/ND	15-5
44884T	Spot Calib	for 44881	-83,85 90.		15min @ D4 3900 17.5V	15V 4300	15V 4210		
44884T	Spot Calib	for 44884			15min @ 15V 3900 L4	D3 4300	D3 4210		
44885	HD200120	20 56.4	+47 08	23 58	01:23	W	+47 30	Fe/-	10-10
44886	HD 197419	20 38.5	+35 06	01:32	02: 34	02 39 W	+35 25	Fe/ND	6
44886T	Spot Calib	for	44886-89.		15min @ 15V 3900	L4 D3 4300	D3 4210		
44887	HD222368	23 34.8	+05 05	02.40	02:49	00 01E	+5 30	Fe/ND	6-10
44888	HD203064	21 14.7	+43 31	02:56	03 06	02 35W	+43 55	"	12-12
44889	HD210139	22 08.1	+58 55	03:09	03 23	02 00W	+59 20	"	12-12
44890	HD217675	22 57.3	+41 47	03:32	0404	01 50W	+42 15	Fe/-	10-10
44890F	Focus Test					01 50W	+42 15	Fe/-	10-10

Spectr. Temp. 79°F ..... Dome Temp./Hum. 75°F / 73% Transparency Conditions ... Cirrus ... off + on all night light clouds

Focus 491 .....

Spectr. Temp. 73°F ..... Dome Temp./Hum. 70°F / 98% Note to next observer: Try on Exposure Meter and decide [illegible] 246

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/235	1-2	4.1	B7nn	BC	1200/-.025	BS	IIIaJe	B	Be-Bln	Exp Meter Morning Amt	Ab Av.
40/204	2	3.5	A0V	"	"	"	"	A	SB-Bln		
40/200	2	2.58	09.5V	"	"	"	"	B	Be-Bln		
100/204	2-4"	6.2	dF8	"	"	"	IIaOe	A	Triple-Blu/Ly	some cloud	Fair
							IIaJ-e				
							IIaO-e		broken, but saved (Zero Setting)		
40/200	1-2	4.5	B1e	BC	1200/-.025	"	IIIaJ-e	B	Be-Bln	Set to 497 T 71°	
100/184	2"	6.5	B2Ve	"	830/.68	"	IIaOe*	A	Runaway-Bln	Set to 495 T: 74°F	Fair
							EaF2e			Int. Bj cloud	
40/25	3"	4.6	F7V	BC	830/.68	BS	IIaOe*	B	Std. Vel.		Fair
40/30	2"	4.9	08V	"	"	"	"	A	Runaway		Fair
40/20	2"	5.3	06f	"	"	"	"	B	"		Fair
40/208	2-3	3.6	B6p	"	1200/-.025	BS	IIIaJ-e	A	Be-Bln	Set to 493 T=72°F	Fair
				"	"	"	IIaO	B			
		IIaOe	Dev Aug 8 D17 @ 62°F Bl. 8 min								
		IIIaJe	Dev Aug 7 D17 @ 64°F Bl. 5 min								

247

Date 7/8 Aug Thu/Fri Observers Myd - Tn

8m 68° Emulsion Batches: 15040 - 05070 ; 17 131

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44891	π UMi HD 139777	15 35.0	+80°47	20:58	23:29	4.46 W	+80°39	Fe/ND	12-12-1
44891 T	Spot Calib	For 44892-T			15 min @ 15V	D4 3920	D3 4300	D5 4810	
44892	15 Sge HD 190406	19 59.6	+16°48	23:40	00:55	1.37 W	17°26	Fe/ND	12-12-1
44893	K Del HD 196755	20 34.3	+9°44	00:59	01:24	1.38 W	10°03	Fe/ND	12-12-1
44894	HR 72 HD 1461	0h 13.5	-8°36	01:35	04:06	0.36 W	-8°08	"	12-12-1
44895	i Psc HD 222368	23 34.8	+5 05	04 12	04 24	1 36 W		Fe/ND	12-12-1
44895T	Focus	Test						Fe/-	8-5

Spectr. Temp. 79°F ..... Dome Temp./Hum. 77°F / 90% Transparency Conditions .... Fine - hazy .....

Focus 493 .....

Spectr. Temp. 73°F ..... Dome Temp./Hum. 70°F / 98% 248

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/170	2"	7.3	G0	BC	830/68	120μ/.5	IIa-0e	A	Solar Type	Reversed / broken in some +30%	Fine
							IIa 0C		↑ This plate developed with 4220GT		
400/170	2"	6.4	G1	BC	830/68	120μ/5	"	B	Solar Type	T=77°F Set 494.5 +30%	Fine
400/170	2"	5.8	G5	"	"	"	"	A	"		Fine
400/340	2-3"	7.1	G0	"	"	"	"	B	"	Some [illegible]	v slight
170/	"	4.6	F7V		"	"	"	A	Std Vel.		Fine
				"	"	"	IIIa-D	B	Set 494.5 T=73°F		
					4491 & 4386->89				Developed normally		
			F+0e	Dev Ang 8	D19	8 min @ 68°F Bts					

249

Date Aug. 1-7, Fri-Sat Observers ...Fl...In.....

Emulsion Batches:
...IIaO: C ...1640... 20 160
...IIaJ: C ...2140... 31 161
...IIa 0 Date 15420 08080 17 179

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
F	Focus Test							Fe/—	8-8
4-1276	HD 187909	15° 23.7'	+29° 27'	20:31	20:38	02° 04W		Fe/N0	12-15
4-1277	HD 187601	19 30.3	+12 36	20:43	20:48	00 08 W		Fe/—	14-17
4-1278	HD 208109	21 02.7	+29 49	21:06	21:57	[illegible]		FeN/	5?-
4-1279 T ✓	Spot Cal. For	14896,98 — 14903		15m... 5V	3400	D3	23		
4-1280	HD 215	21 38.3	+29 42	21:58	[illegible]	[illegible]		FeN/	3-5
4-1281 T ✓	Spot Cal. For 97			15m... 19	17.5V 3900	15V 4300	10V 4700		
100	HD [illegible]	[illegible]	+14 15	[illegible]	23 12	0 30E		F./N0	[illegible]
4-1282	HD [illegible]	21.40.7	+25 11	23:16	23 26	01 24E		11	[illegible]
4-1283	HD 20115	21 52.7	+35 49	23:45	02 39	02 28W	+34 03	"	[illegible]
4-1284	HD 213675	22 57.3	+41 47	02:47	02 52	00 40W		"	2 10
4-1285	HD 213782	23 01.5	+42 37	02:57	03 13	01 06W			16 10
4-1286 T	Spot Cal. For	14904 — 05							
4-1287	HD 219	23 08.9	+4 27	03:17	04 28	02 06W	+14 57	"	1-4

Spectr. Temp. 76.5°F Dome Temp./Hum. 75°F / 88% Transparency Conditions Fog - haze - cloudy

Focus 4.12

Spectr. Temp. 74 Dome Temp./Hum. 74°F / 85%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-005	BS	IIaO-e	A			
40/40		3.93	F0p	"	"	"	"	B	Asm-Sp KK		
40/128	2"	3.2	G6II	"	"	"	IIIaJ-b	A	Asm-Sp KK		
0/151	3'-5"	4.2	G8II	"	1200/0.2	120/.5	IIaO-e	B	SPEC STD	Much moisture	F
							"				
40/150	3"	3.8	G8II 1F?	"	1200/0.2	120/.5	IIaO-e	A	Asm-Sp KK	clouds broken	F
							IIIaJ-e				
27	3'	V-3.7E	F5II	"	1200/.68	150/.5	II-O-e	B	Asm-Sp KK	T=16°F	F
0/30	2.5"	4.4	F5IV	"	"	"	"	A	" "		F
0/37	3.4"	7.3	A2	"	1200/.68	150/.5	"	B	" "	T=16°F Sat F=495 Moved to stage A-E	F-G
0/37		3.6	B6p	"	"	150/.5	IIaO-e	A	" "	T=33°F Sat F=446	F
0/40		6-3.7	A2	"	1200/.68	150/.5	IIaO-e	B	" "	Spoiled in development	F
							"				
0/150	2.5"	F 3.7	B5	"	1200/.68	150/.5	"	A	Asm-Sp KK	Spoiled in development	F
	IIIaJe	Del	Aug 11 @	64°F	5 min		BIs				
	IIaOe				8 min						

251

Date Aug 12-13 Inc-Cld Observers MR-TM

Emulsion Batches: Ha0-C 15040-08080 21, 173

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44904*	HD 161096	17h 38m.5	+04° 37′	20 32	20 39	00 06 W	+4 38	Fe/ND	12-12-12
44904F	Focus Test							Fe/-	15-15
44905*	HD 156547	17 13.1	+26 00	20 44	22 11	02 04 W	+25 58	Fe/ND	12-12-
44905F	Spot Calc	for 44904-08			15 min @ 15U	D4 3900	D3 4300	D3 4810	
44906*	HD 176003	18 53.0	+44° 05′	22 24	23 36	01 49 W	+44 15	Fe/ND	12-12-12
44907*	HD 202313	21 09.9	+30 33	23 41	02 02	01 59 W	+30 56	"	12-12-12
44908	HD 222207	23 33.5	+41 57	02 11	03 44	01 17 W	+42 26	"	12-12-12

Spectr. Temp. +72°F ..... Dome Temp./Hum. +67°/85% ..... Transparency Conditions Cloud at first ..... Poor Hazy at close 252

Focus ....4.96.....

Spectr. Temp. .64°F ..... Dome Temp./Hum. +59°/100% + very wet

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/60	1½"	3.73	K2III	EC	830/68	BS	IIaO-e	A	stdvel	Cloud * Label #6	fine
				"	"	BS	098	B		* Label ~ 6	
400/200	2-3"	7.04	A1	EC	830/68	BS	IIaO-e	B	Am-MR	sl cl * Label ~ 7	fine
							IIaO-e			sl cl	okay
400/183	2-4"	7.00	A1	"	830/68	BS	IIaO-e	B?	Am-MR	* Label 6X Set 497 T=69°	fine
400/190	"	7.52	B9p	"	"	"	"	A?	Ap-MR	* Label 7X some clouds	sl cl
400/200	2"	6.77	A5	"	"	"	"	A	"	Set 496 T=66°	fine
1V --- amp?											
				Note - There will be an extra plate labelled "X"							
				It should be very weak with one Fe arc but I							
				thought I had a dbl exp going, so restarted #4908,							
				but then I realized that the sequence got messed up earlier.							
				Should be OK though.							
IIaO e	Dev	Aug 13 @ 69°F 8 min D19 Bls									
										20μ: Radiance det 20/min @ 40	

253 2nd Half of 14/5

Date 15 August 1980 Observers Bln - Tn

Emulsion Batches:
Plate 07119-25070 10 234
Prism 07119-02080

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44909	HD200120	20H 56M.4	+47° 08'	01:35	02:55	03.15 W	+47° 28'	Fo/—	12-12 2
44909T	Spot Calc for 44909; 11.			15 min @	D4 13.5V 3930	4320 15V	7810 15V		
44910	HD 200120	20H 56M.4	+47° 08'	03:01	04:06	04:25 W	+47° 28'	Fo/HD No/—	6-6 6-6
44910T	Spot Calc for 44910			15 min @	D3 17.5V 5810	7V D1 Hα1	7V D3 5450		
44910	HD 5394	00 50.7	+60° 11'	04:19	04:25	00:47 W	+60° 33'	Fo/HD No/—	9-9 9-9
44911	HD 5394	00 50.7	+60° 11'	04:30	04:39	01 03 W	"	Fo/—	18-18
44911F	Focus Test							Fo/—	10-10

Spectr. Temp. 72°F ..... Dome Temp./Hum. 65°F/94% Transparency Conditions .. Excellent .....

Focus .. 49.6 .....

Spectr. Temp. ..... Dome Temp./Hum. 62°F/99% 254

Comparison e/Filter/ Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	30/300	4-3"	4.51	B1e	BC	330/.68	BS	IIIa-JE	A	Be - Bln		
								IIIa J-E				
	~~56~~/200	~~3-4~~	~~4.51~~	~~B1e~~	~~BC~~	~~1200/.7~~	BS	~~098-02 E~~	~~B~~	~~Be - Bln~~	No Cont. Grain Image T=70°F F=195	
								098-02 E			4810 v. strong	
	70/104	3	2.43	B0e	BC		BS	098-02 E	A	Be - Bln		
	40/102	2-3	2.43	B0e	BC	1200/.025	BS	IIIa-JE	B	Be - Bln	T=68°F F=494	
					"	"	BS		A			

255

Date 15/16 August 1980 Fri/Sat. Observers Bln - Ri

Emulsion Batches: 098-02E 07119-02080 (31 183) IIIa-J 6 07119-25070 (22 250)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44912F	Focus Test							Fe/-	20-20
44912	HD149757	16h 31m.7	-10° 22'	19 47	20 04	00 48W	-10°28	Fe/-	18-18
44913	HD149757	16h 31m.7	-10° 22'	20 10	20 21	01h 05W	-10° 28	Fe/ND Ne/-	9-9 9-9
44914	HD 138749	15h 28m.9	+31° 42'	20 25	20 49	02 38W	+31°29	Fe/ND Ne/-	9-9 9-9
44914F	Focus Test							Fe/ND	13-13
44915	HD 138749	15h 28m.9	+31° 42'	20 55	21:16	2 05W* 2 13W	+31° 29'	Fe/-	12-24
44915T1	spectral cal for plates 44912,15				15min@	D4 17.5V 3900	D4 15V 4300	D4 15V 4810	
44915T2	spectral cal for plates 44913+14				15min@	D3 15V 4810	D1 7V H2	D2 7V 5450	
44916	HE 162732	17h 47m.4	+48° 25'	22 23	02:09	05h 41W	+48° 26'	Fe/ND Ne/-	6-6 6-6
~~44917~~	~~HD 200120~~	~~20h 56.4~~	~~+47° 08'~~	~~02 16~~				Fe/ND Ne/-	6- 6-

Spectr. Temp. 70°F ..... Dome Temp./Hum. 69°F / H=78% Transparency Conditions Occasional cloud banks Hazy otherwise 256

Focus 495 .....

Spectr. Temp. 62°F ..... Dome Temp./Hum. 57°F / H=90% Exp. Mtr. Test ⇒ 23 counts/min @ 6"40

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-.025	BS	IIIa-JE	A		T=70°F F=495	cent'l
0/140	4	2.58	09.5II	BC	1200/-.025	BS	IIa-JE	B	Be-Blu		Fine
0/90	4	2.58	09.5II	BC	1200/0.7	RS	098-02E	A	Be-Blu	Grating slightly loose?	s/str
90/90	3	4.10	B7nn	BC	1200/0.7	RS	098-02	B	Be-Blu		Fine
				BC	1200/0.7	RS	098-02	A		T=68°F F=495	cent/bkg v wk
0/49	2	4.10	B7nn	BC	1200/-.025	BS	IIIa-JE	B	Be-Blu	Cloud 21:07-Rain 21:16 *Telescope moved before final focus	
							IIIa SEb				
							098-02E			foggy	
00/452		6.35	Ap	BC	1200/0.7	RS	098-02E	A	Be-Blu	Intermittent cloud	s/wk
00/		4.51	B1c	BC	1200/0.7	RS	098-02E	B	Be-Blu	Cloud!	

257

Date Sept. Aug. 14/17 Observers RH-TR

Emulsion Batches:
IIa-O-E 15040 ..... 19 181
IIa-O-E* 15040 11080 18 179

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
[illegible]	HD 172 [illegible] = FF Aql	18h 53s	+17° 14	23:00	23:35	2h 04W	17 22	Fc/[illegible]	12 12 2
44917T ✓	spot cal for plate	44917 -	44922		15 min @ 15 Volts	D4 3900	D3 4300	D2 4910	
44918	HD 1866 [illegible] = 5 Cyg	19h 46.2	+29° 01	23:41	00 49	2h 30W	29° 16	Fc/ND	12-12
44919	HD 187057 = 5 Sge	19h 57.5	+16° 22	00:54	01 57	3h 27W	+16° 37	Fc/ND	12 12-12
44920	HD [illegible] 41 Cyg	20h 25 3	30° 2	02:02	02 11	3h 08W	+30° 21	Fc/ND	12-12
44921	HD 197572 = x Cyg	20h 39 3	+35° 14	02.15	03 33	4h 16W	+35° 35	Fc/ND	12-12 18
44922	HD 201078 = 55 Cyg	21h 00 3	+32° 17.0	03:36	04 40	5h 00W	+31° 10	Fc/ND	18-18-12
44922CAL ✓	spot cal for plate	44923		15 min @ 15 Volts		D4 3900	D3 4300	D2 4810	
44923	HD 12929	02 01.5	+23° 59	04 44	04 47	06 06W	+23 23	Fc/ND	18 -18
44924F	Focus Test							Fc/-	18-18

Spectr. Temp. 68°F Dome Temp./Hum. 62°F 97% Transparency Conditions some cirrus clouds around

Focus .....

Spectr. Temp. 66°F Dome Temp./Hum. 62°F 84% four stars

258

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/375	3	5.8-6.9	CFS-CF9	BC	530/65	BS	IIaO-E	A	Cyph/Emiss	Focus=497 Sod 68°F	Fe wk Fine
							IIaD-E				
30/180		~7.5	FO-G1	BC	33½/65	BS	IIaO	B	Cyph/Emiss		Fe wk S/wk
5/375		~7	FO-G1	"	"	"	"	A	Cyph/Emiss	BROKEN 3 PIECES	Fe wk Fine
5/31		4.4	FE	"	"	"	"	B	Cyph/Emiss	F=498 67°F	Fe wk Str
5/375	3	~6	FTIb-G1b	"	"	"	"	A	Cyph/Emiss		Fe wk S/str
5/256		~6	FCS-F7	"	"	"	"	B	Cyph/Emiss		Fe wk Fine
							IIaD-E*				
30/65		315	K2III	"	"	"	"	A	Sto vel		reg S/str
				"	"	"	"	B			cool S/str
									All Fe lines particularly wk in the blue		
									Focus just quite str though?		

257

Date AUG. 19/20 TUES/WED. Observers B.W.-T.

Emulsion Batches:
No. 1504 - 11080 20 170

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44924 ✓	HD222207	23 33.5	+41 57	01 27	02 30	+00 30 W	+42 25	FE/ND	16-16-0 3
44924T	Spot Calib. for 44924			15 min @ 15V		D4 3900	D3 4300		
44925	HD222916	23 35.3	+44 31	02 33	04 33	+02 01 W	+45 00	FE/ND	16-
44926	HD12929	02 01.5	+22 59	04 32	04 42	-00 16 E	+23 25	FE-	6-6
44926F	Focus Test							Fe/-	6-6

Spectr. Temp. +73°F Dome Temp./Hum. 66°F / 95% Transparency Conditions sl haze

Focus 496

Spectr. Temp. +70F Dome Temp./Hum. 66°F / 93%

260

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		253	3	577	BSp	BC	830/68	BS	IIaoE	A	Ap MR	* Cryst in f 10 sec	fine
									"				
		245	3"	7.45	AOp	BC	830/68	BS	"	B	Ap MR	CLOUD	fine
		14		3.15	K2 III	"	"	"	"	A	STD VEL	Arc Lamp	comp wk star visible
									IIaO	B		Fe Arc adjusted	sl blue

261

Date Aug 20/21 Wed/Thurs Observers Rm-Ki

Emulsion Batches:
IIaO E 15040 - 11080
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44927	HD163466 = BS Her	17h 59.4	+26° 4	19:55	20 19	00 05W	+26° 06	Fe/	16 F
44926	HD162714 = Y Oph	17h 47.3	-06° 07	20:24	55:44	2 35W		Fe/	16/16
44925 T ✓	Spot calib for 44927			15 min	@ 15v	D4 3900	D3 9300 D2 48		
44924	HD166578 = SU Cyg	18h 9m.6	+29° 01	22:57	00 35	02 33W	+29° 15	Fe/	16 16
44923	HD177037 = S Sge	19h 51.5	+16° 32	20 31	01 16	03 02W	+16° 36	Fe/	16 16
44922 F								Fe/—	15 15

Spectr. Temp. 75°F Dome Temp./Hum. 68°F 96% Transparency Conditions .....

Focus 495

Spectr. Temp. 70°F Dome Temp./Hum. 64°F 100%

262

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/190	3A	5.3	F2 I-	BC	53[illegible]	B5	IIaE	A	Cook/Evans		fine
20/375	3-4	17.8	F8 I- G 350	BC	"	"	"	13	Cook/Evans	some cloud	weak
							"				
20/170		7.2	F0- G4	BC	"	"	"	A	Cook/Evans	broken 5 prism 73°F spectrograph Focus 9½	
20/377		16.9	F-I- G B	"	"	"		B	Cook/Evans		v sl sm.
							"	A		cloud [illegible]	v sl blue
										[illegible]	

263

Date Aug. 22/23. Fri-Sat Observers Flo-Ri

5m 68° Emulsion Batches: Tri-Ab. 7119-25070.....
8m 68° Tri-Ab. 15040-11080...
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44731	HD 137909, βCrB	15h 23.7	+29° 27	20:11	20:58	03 20W	+21 [illegible].3	Fe/—	8-8-8
44932	HD 159561, α Oph	17 30.3	+12 38	21:02	21:15	01 30W	+ [illegible]	Fe/—	8-8-
44933	HD 186791, δ Aql	19 41.5	+10 22	21:20	21:38	00 19E	+10 [illegible].2	Fe/ND	15-15-
44933F	Focus Test							Fe/—	15-15
44 933T	spotcal for plate			15 min @	17.5V D4 3900		15V D4 4300	15V D4 4810	
	CLOSED FOR CLOUDS, REOPENED ~ 02° 00								
44934	HD 202109, 5Cyg	21 08.7	+29 49	01:21	02:09	02 45W	+30 10.6	Fe/—	5-5-5
44934T	spotcal for plate			.5 min @	15V volts	D4 3900	D3 4300	D2 4810	

Spectr. Temp. 72°F ..... Dome Temp./Hum. 69°F / H=95% Transparency Conditions Very. Hazy, Becoming W. Cloudy .....

Focus ... 493 ..... EXP. TO DETERMINATION.

Spectr. Temp. 70°F ..... Dome Temp./Hum. 67°F / H=97% 264

EXP. METER TEST: 21 counts/minute @ G40

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/310	2-3	3.66	F0p	EC	1200/-.025	BS	IIIaJeb	A	Fem-Sp/KK		wk
40/150		F-22	A5II	"	" / "	"	"	B	" "		sl wk
30/70		2.62	K3II	"	" / "	"	IIaOe	A	STD VEL	Haze and fog increasing	
				"	" / "	"	IIaOe	B		T=70°F Set F=493. blue	sl wk Emiss wk
							IIIaJeb				
30/291	4	3.19	G8II	EC	1200/.2	BL/.5	IaOe	A	SPEC. STD.	Dome: T=67°F, H=97% T=70°F, Set F=413	sl wk Good Emission
							IIa0-E			FOG! Dome T=64°F, H=100% Spot: T=70	

265

Date ~~Sept. Sun~~ Aug 23-24 1982 Observers BK - RI

8m 68° Emulsion Batches: IIa-E 15040 - 11080 ..... IIa-E 15040 - 22080 .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44935 ✓	HD 175588	18 51.0	+36 47	22 19	22 39	1 39 W	36°55'	Fe/ND	10-10-
44935T ✓	spectral to plates 44935-38				15 min @ 15 volts	D4 3900	D3 4300	D2 4810	
44936	HD 187691	19 46.2	+10 10	22 44	23 04	1 06 W	+10°25'	Fe/ND	10-10-
44937	HD 196387	20 44.9	+52 03	23 10	00 02	1 07 W	+52 23	Fe/ND	10-10-
44938	HD 194093	20 18.6	+39 56	0 05	0 07	1 39 W	+40 15	Fe/ND	10-10-1
44939 ✓	HD 209682	22 00.2	+32 27	0 13	0 52	0 52 W	+32 54	Fe/ND	10-10-
44939T ✓	spectral to plates 44939-				15 min @ 15 volts	D4 3900	D3 4300	D2 4810	
44940	HD 211853	22 10.1	+27 02	1 07	2 00	1 40 W	+22° 29	Fe/ND	10-10-1
44941	HD 217634	23 04.5	-8 09	2 05	2 46	1 31 W	+08° 38	Fe/ND	10-10-
44942	HD 218391	23 07.5	+20 03	2 50	4 24	3 10 W	+20 34	Fe/ND	10-10-
44943	HD 17506	2 43.4	+55 29	4 28	4 35	0 20 E	+55°53	Fe/ND	10-10-
44944	HD 2627	0 34.0	+30 19	4 40	4 45	2 00 W	+30°48	Fe/ND	10-
44945	HD 12959	2 01.5	+22 59	4 48	4 50	0 38 W	+23 26	Fe/ND	15-
44945F	focus test							Fe/—	10-

Spectr. Temp. ...735F..... Dome Temp./Hum. 68°F 88% Transparency Conditions ...good.....

Focus .....496.....

Spectr. Temp. ....68°F..... Dome Temp./Hum. 64°F 93%

266

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20m/ 20	2-3	5-9	M4	B.C.	830/.680	150/.5	IIaO IIIa	A	Waterloo		fine
							IIaO-E				
20m/ 20		5-6	F8	B.C.	830/.680	150/.5	IIaO-E	B	"		fine
20m/ 20		7-1	K0				IIaO-E	A	"		fine
20m/ 20		2-9	F8				IIaO-E	B	"		sl strong comp sl. str.
400/ 150		7-5	G5				IIaO-E*	A	"		good
							IIaO-E*			Broken	
20m/ 50	2-3	7-5	G5	B.C	830/.680	150/.5	IIaO-E*	B	"		good
20m/ 500		9-6	M2	"	"	"	"	A	"	T 70°F F 497	fine
60/ 100	3-4	7-7	K0	"	"	"	"	B	"		fine
20m/ 110		7-4	K3	"	"	"	"	A	"		composite
30m/ 46		4-6	K3	"	"	"	"	B	"		fine
10/ 27		3-15	K2 IIIa	"	"	"	"	A	Std Vel		s' strong
				"	"	150/1.0	"	B		T 68°F F 497	sl blue

267

Date . Aug. 24/25 ..... Observers ... W.h.-Bts .....

5m 680 Emulsion Batches:
8m 680 .098a2a....07119.-16080
IIaOe.....15240.-22080
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44946	HD193793	20 17.1	+43° 32′	20h53m	21h25m	0h55m E	+43° 51′	Fe/ND4 Ne/—	4-4-4 4-4-4
44947	HD193793	20h17m.1	+43° 32′	21 45	22 17	0h0m.	+43° 51.7	Fe/ND4	3-3-3
44948	HD193576 = V 444 Cyg	20h15m.9	+38° 25′	22h54m.	23h18m	58m W.	+38° 40′	Fe/ND	3-3-3
44949	HD193576 = V 444 Cyg	20h15m.9	+38° 25′	23h32m	23 45	1h24m W	138° 40′	Fe/ND Ne/—	4-4-4 4-4-4
44950	HD192641	20h10.8	+36° 21′	0h12m	01 36	3h22m W	36° 25′	Fe/ND Ne/—	4 4
✓ SOT	spectral for	44946, 49, 50, 51, 54		15 min	1.) 03 (1) 4810	7V D1 (2) Hα	7V D2 (3) 44950		
44951	HD222368	23h34.8	+5° 05′	1h45m	1h58m	0h17m W	+5° 35′	Fe/ND Ne/—	4-4-4 4-4-4
✓ SIT	spectral for	44947, 48, 52, 53		15 min Ks	04 (1) 3900	03 (2) 4300			
44952	HD222368	23h34m.8	+5° 05′	2h09	2h16m	0h35m W	+5° 35′	Fe/ND	3-3-3
44953	HD 5394 = 8 Cas	0h50′.7	+60° 11′	2h47m	2h50m	0h7m W	+60° 38′	Fe/ND	3-3-3
44954	HD5394	0h50.7	+60° 11′	3h04m	3h10m	0h12m W	+60° 38′	Fe/ND4 Ne/—	9-9-9
	Focus							Fe/ND4 Ne/—	15 —

Spectr. Temp. ....76°..... Dome Temp./Hum. 74°F./76% Transparency Conditions ..sky..streaked..with..cloud..

Focus .....491.....

Spectr. Temp. ....74°..... Dome Temp./Hum. 70°F./76%

Heavy Haze @ 2000 EST

268

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/125	1"-2"	7.1	WC+	BC	400/.38	250/.5	098-02e	A	Wh-WR	F=491 V filter T=75°	fine
700/204		7.1	WC+		150/.5	"	IIaOe	B	"	F=501	focus? v sl strong
300/201	3"	8.3 8.6V	WN 6.5 +06		150/.5	250/.3	IIaOe	B	"		
300/100		"	"		400/.38	250/.3	098-02e	A	"	probably wrong str F=500 V filter T=75°	sl str
300/60					400/.38	250/.3	098-02e	B	"	V filter Stray clouds.	fine
							098-02e				
700/101		4.64	F7II		400/.38	250/.3	098-02e	A.	STD Vel	V. filter	sl strong
300/201		4.64	F7II		150/.5	250/.3	IIaDe	B	STD Vel	F=501	strong
300/40		2.65	30IIe		830/.61	120/.5	IIaOe	B		F=495 T=74°	strong comp. wk
700/10		2.65	30IIe		400/.35	120/.5	098-02e	A		V Filter- Clouds!	v sl str
							098-02e	A		F=495 T=74°	v sl fine

269

Date .. Aug. 25/26 Mon/Tues Observers .. But-Rts

8" 680P Emulsion Batches: IIaOe .. 15240 .. 24080

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44955F	Focus TEST							Fe/-	10-10
44955	HD161096 (β OPH)	17 38.5	+04 37	19 59	20 03	+00 20W	+04 36	Fe/ND4	16-32
44956	HD168481	18 14.8	+15 47	20 10	21 46	+01 28W	+15 54	Fe/ND4	16-16-1
44957	HD 176003	18 53.0	+44 05	21 54	23 17	2h18m W	+44 15	"	16-16-16
57T	Spot Cal for	44955-57		15min 15V	① 3900 D4	② 4300 D3	③ 4810 D2		
57F	Focus test							Fe/-	10-10
	Aug 27								
44957T2	Spot Cal plate			15 min	@ 7V	D2 5450	D2 5450	D2 5450	

Spectr. Temp. ...78°F..... Dome Temp./Hum. ..76°F./79% Transparency Conditions ..haze, scattered cloud.....

Focus .....494.....

Spectr. Temp. ..... Dome Temp./Hum. 270

Comparison e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	830/68	BS	IIaD	A		F=494 T=76°	good
	410/20				"	"	BS	IIaOe	A			good
	700/250	1-2	7.08	FOp	"	"	"	"	A	Ap MR		good
	700/250		7.00	A1	"	"	"	"	A	Am MR		comp strong, star sl. sm.
								IIaOe	B		F=494 T=76°	good
								IIaD				

241

Tues - Wed

Date Sept. 23. 180 Observers T.H.

Emulsion Batches: 8m 68 II a-c 15040-25080

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44958	HD 156547	17 13.1	+26 00	19 39	22 27	3 43 W	+25 57	Fe/ND	16-16-16
44958T ✓	Spot Calib for	44958-61			15 min @ 15A	D4 3900	D3 4300	D2 4810	
44959	HD 176003	18 53.0	+44 05	22 33	00 38	4 15 W	+44 16	Fe/ND	16-16-16
44960	HD 222207	23 33.5	+41 57	00 43	03 01	1 56 W	+42 25	"	14-14-14
44961	HD 222368	23 34.8	+5 05	03 06	03 18	2 12 W		"	20-20-20
44961F	Focus	Test		(Fe Arc adjusted)		"	"	Fe/—	20-20

Spectr. Temp. 69°F ..... Dome Temp./Hum. 65°F / 82% Transparency Conditions . Clearing - sl. hazy .....

Focus ..... 497 - 498 .....

Spectr. Temp. . 63°F ..... Dome Temp./Hum. 58°F / 100%+

272

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/485	5-3	7.04	A1	BC	830/.68	BS	IIaO-e	B	Am MR		fine
							"				
30/520	4-2	7.00	A1	BC	830/.68	BS	"	A	Am AR	T=68°F	fine
400/300	2"	6.77	B9p	"	"	"	"	B	Ap MR	T=66°F Set 498 (some cloud)	v sl str
40/27	3"	4.64	F7L	"	"	"	"	A	sld Vol	Too damp & foggy for VV	v sl str
				"	"	"	098	B	T=63°F	Set 498 Tau Vel	v sl blue

273

Wed - Thurs

Date Sept 3/4 30 Observers R - T

8m 69° New Stop

Emulsion Batches: IIa0-a 15040-25050

IIa0-E * 15045-25080

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44760	HD 226868 = 250 Cyg	19h 54.6	+29° 21	19 41	20 4 A	00 24 E	+29° 14	F/	1-2
44763	HD 178343 = TT Aql	19h 03.2	+01° 08	20 48	23 10	02 40 W	+00 19	F/	1-2-4
44765T	Spot Calib. for 44762-64	44762-64	15 min @ 15V		D4 3900	D3 4300	D3 4300		
44801	HD 176155 = FF Aql	18h 53.8	+17° 14	23 18	00 01	03 40 W	+17° 23	F/ND	1-2
44805	HD 195295 = 41 Cyg	20h 05.3	+30° 2	00 05	00 15	02 23 W	+30° 20	F/	1-2
44965T	Spot Calib. for 44965-				15 min @ 15V	D4 3900	D3 4300	D3 4300	
44966	HD 197572 = 8 Cyg	20h 37.6	+35° 13.6	00 19	01 32	03 24 W	+35° 35	F/ND	12-12-2
44967	HD 201078 = 57 Cyg	21h 02.3	+30° 47.0	01 35	02 27	03 59 W	+31 08	F/	2-1-2
44968	HD 206165 = NE Lac	21 15.4	+37° 44	02 32	03 52	05 10 W	+38 12	F/ND	1-2
44970A	HD 222368	23h 34.8	+5 05	03 56	04 05	03 05 W	+5 33	F/ND	1B 1C
44971T	Focus Test							Foc	1B-1C

Spectr. Temp. 61°F Dome Temp./Hum. 68°F 80% Transparency Conditions ... hazy ... Foggy

Focus 497

Spectr. Temp. 65.5 Dome Temp./Hum. 62°F 100%

274

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
/253	1"	6.9-7.7	F0-G1	BC	830/.53	BS	IaOE	A	Cepk/Evans		more stars enough
/756	2"	~7.8	F8-K0	BC	"	"	IIaOE	B	Cepk/Evans		good
							"				
/-59	1'	~5.9	CF-	BC	830/.53	BS	"	A	Cepk/Evans	broken [illegible]	
/95	1"	4.0	F-F	BC	830/.68	"	IIaO-E*	B	Cepk/Evans	T: 64°F [illegible]	sl str
							"				
/958	1"	~6.7	F7-8	BC	830/.68	BS	"	A	Cepk/Evans		
30/450	2"	~6.1	F7-8	"	"	"	"	B	Cepk/Evans		
30/361	1-2"	5.7	F2	"	"	"	"	A	Cepk/Evans	cloud	
30/25	2"	4.6	F7	"	"	"	"	B	std rel		v sl str
								B			

225

Date ... Observers ...

Emulsion Batches:
5" 69° ... 098 05 ... 07119 ... 16086
8" 69° ... IIa-e ... 15040 ... 09090

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44970 F	Focus Test								
44970	HD 200120	20 56.4	+47 03	19 56	21 12	01 08 E	+47 27	Te/ND	6-6
44970 T	Spot Calib for 44970-71				15 min @	15V D3 4810	7V D1 H-	D3 4450	
44971	HD 200120	20 56.4	+47 08	21 17	21 56	00 21 E	+47 22	Te/ND	6-6
44972	"	"	"	22 01	22 23	00 02 E	"	Te/ND	12-12
44973	HD 200120	20 56.4	+47 08	22 27	22 39	00 20 W	"	Te/ND	12-12
44973 T	Spot Calib for 44972-76			15 min @	1 V	D3 2200	D3 4300	D3 4810	
44974	HD 203064	21 19.7	+43 31	22 43	22 58	00 19 W	+43 51	Te/ND	18-18
44975	HD 197419	20 38.5	+35 06	23 02	00 12	02 10 W	+35 25	Te/ND	12-12
44976	HD 214930	22 36.6	+23 19	00 18	01 26	01 36 W	+23° 46'	Te/ND	12-12

Spectr. Temp. 73° F ..... Dome Temp./Hum. 71° F / 80 % Transparency Conditions very hazy ... almost .....

Focus 4.4 for 1200/17 .....

Spectr. Temp. 72° F ..... Dome Temp./Hum. 67° F / 100 %

276

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	600/5.2	F2	098	B		F - 4'4 T = 72°.5	
20/180	1"	4.71	B1e	BC	1200/0.7	F2	098-02E	A	Be - B1		good fine
							CM-aE				
20/158	1"	4.51	B1e	BC	1200/0.7	158/.7	098-02E	B	Be - B1	F = 176	stronger than RSplate fine
30/50	1"	4.57	"	"	830/.68	15/.7	Da0-e	A	Be B1	thin cloud	
30/60	1-5"	"	"	"	"	B5	"	B	"	cloud at start	
							"				
30/60	1-2	4.78	O8V	BC	830/.68	B3	"	A	Runaway	50' 49% T = 72°F	
30/300	1.2	6.52	B2III e	"	"	"	"	B	Runaway	" "	
300/166	"	7.39	B2IV	BC	830/.68	B3	IIIaE	A	Runaway	cloud T = 72° F	

Date 5/6 ~~Sept~~ 1980 Observers Myd Tn

Emulsion Batches: IIaO c 15090-04090

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
44977F	Focus Test							Fe/—	20
44977	HD 161096	17 38.5	+4 37	19:35	19:44	0 44 W		Fe/ND	2-2
44978	HD 161004 ↑ SER	15 51.8	+7 40	19 48	20:07	3 05 W		"	30
44978V	Spot Cal	Ex. 44977-80		15 min @		17	D3 4300	D3 4300	
44979	HD 159222	17 28.5	+34 21	20:17	22 28	3 40 W	+34 19	Fe/—	18/36
44980	HD 187923	19 47.4	+11 23	22:33	00:06	2 59 W	+11 41	Fe/ND	13-15

Spectr. Temp. 73° F Dome Temp./Hum. 68°F / 75% Transparency Conditions Fine

Focus 496

Spectr. Temp. 68°F Dome Temp./Hum. 53 / 95%

278

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	120/40	098	A			
0/29	3"	3.7	K2II	"	"	120/.5	II-O-e	A	Std Vel		v sl str.
0/34	3"	5.0	60	"	"	"	"	B	Solar Type		v sl str.
							"				
0/180	2"	6.9	G2	BC	830/.68	120/.5	"	A	Sol Type		fine good
0/70	2"5	6.7	G2	"	"	"	"	B	"	cloudy	strong

279 Sal-Sac 2 Large Tours

Date 6-7 Sept. 1980 Observers KK-TG

Emulsion Batches:
IIaO 15040-24080
4404-e

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
14981	HD 8890 B	1 22.5	+88 46	22:37	01:31	2 02 E	+89 10	Fe/NDAX	13-13-1
14981T	Spot calc for 14981, 83, 84,				15m-@ 15V				12 12 12
14982	HD 8890 A	122 5	+88 46	01:35	01:42			Fe/—	13-13-1
14983	HD 6582	101.6	+54 26	01:51	02:46	0 28 W	+54 49	Fe/ND	16-16-1
14984	HD 18925	2 57 6	+53 07	02:51	03:30	0 44 E		Fe/ND/66	5-5-5
14985	HD 29139	4 30.2	+16 18	03 39	03 45	2 01 E		Fe/—	16-16-
14986	HD 47105	6 31.9	+16 29	03.50	04 02	3 46 E		Fe/—	24-2
14986F	Focus							Fe/ND/66	10-10

Spectr. Temp. ..+69°F..... Dome Temp./Hum. 63°F/..90%.. Transparency Conditions .Photometric.....

Focus ....498.....

Spectr. Temp. ...62.°F..... Dome Temp./Hum. 57°F/100%+

280

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60/108	3"	8.9	F	BC	830/.68	150/3	IIaOe	B	Asm Sp - ICK		flexure
							"				
60/80		10.9	F2	BC	830/.68	150/5	IIaJ-e	A	Sp Sp ICK	Spec Temp = 64.5 *	v sl sn
60/40	2.3	5.81	G5Vp	BC	1200/.025	150/5	IIaOe	B	Asm Sp ICK		fine
60/150	3"	3.	G8III + ADV	BC	1200/.2	120/5	IIaOe	A	Asm Sp ICK		
60/126		2.39	K5III	BC	1200/-.025	150/5	IIaJ-e	B	Std Vol	RHS *	v sl wk good
60/111	4"	1.9	A0V	BC	1200/-.025	150/5	IIaOe	A	Asm-Sp/ICK	RHS *	fine
				"	"	150/5	IIaO	A			blank
										IIIaJ Exp [illegible]	
										of HD of Exp	
										IIaO box.	

281

Date 7/8 Sept. 1980 Sun/Mon Observers B.Lu-Tu

8h 69° Emulsion Batches: IIa0-e 15040 - 04090

3 hrs Evecott → IIa0-e* 13050 - 07090

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44987F	Focus Test							Fe/-	15-15
44987	HD188439	19H 50M 1	+47° 33'	19 22	20 05	00 56E	+47°46'	Fe/ND	12-12
44988	"	"	"	20 13	20 46	00 15E	"	Fe/ND	12-12
44989	"	"	"	20 47	21 15	00 16W	"	"	12-12
44989T	Spot Calc for 44987-90.			15 min @ 15V		D4 3900	D3 4300	D2 4810	
44990	HD188439	19 50 1	+47 33	21 29	22 13	01 12W	+47 46'	Fe/ND	12-12
44991	"	"	"	22 44	23 07	02 06W	+47 49*	Fe/ND	12-12
44991T	Spot Calc for 44991			15 min @ 15V		D4 3900	D3 4300	D2 4810	

Spectr. Temp. 70°F ..... Dome Temp./Hum. 66°/68% .. Transparency Conditions ..Some cloud.....

Focus ..497.....

Spectr. Temp. ..... Dome Temp./Hum. 61°F/84%.

282

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	098	A		T=70°F F=497	Ok
300/300	2-3	6.18	BD5II	"	"	BS	IIa0-e	B	Runaway	T=68°F	S/ strong
300/300	3"	"	"	"	"	"	"	A	"		S/ strong
300/250	1-2"	"	"	"	"	"	"	B	"	cloud at end, cu-s'ort	S/ strong Fine
							"				
300/97	.	6.18	Conf II	BC	830/68	BS	"	A	Runaway	Effective end 21:45 Some C'oud 00:14 W T=69°F	good
300/146	1"	"	"	"	"	"	IIa0-e*	B	Runaway	T=66°F Set 498 C'oud # Comet report	Fine
							IIa0-e*				

283

Date Sept 8/9 Mon/Tue Observers Hu-Tu

Emulsion Batches: IIa-O 13252 - 07040

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
44912			+21° 01	23:41	23 15	01 26 W			
44913 ✓	Spec Calib		45000	15	15	D4 D3 00 4300	02 +820		
44914		20 35 3	+30° 02	22 17	22 27	00 54 W	+30 25		
44915	570	20 34 5	+35° 14	22 31	00 18	02 38 W	+35 40		
44916		21 15 4	+37° 44	00 22	1 50	03 28 W	+38 16		
44917	HD 199	1h 22.6	+35° 46	01 58	2 06	01 20 E	+35 17		
44918	HD 199	1h 22.6	+35° 46	02 09	2 15	01 11 E	+35 17		
44919	HD 199 2 Hor	3h 17.2	+44° 30	02 22	2 28	01 53 E	+44 53		
44920	HD 199 Hor	3h 17.2	+44° 30	02 29	2 32	01 58 E	+44 53		
45000	Spec Calib Hor	2h 41	+36 33	02 56	4 00	01 50 E	+3647		
45000 F	Focus Test							Fel	

Spectr. Temp. 70°F Dome Temp./Hum. +65°/80% Transparency Conditions Some Cloud

Focus 497

Spectr. Temp. 65°F Dome Temp./Hum. 60°F/100% + Cloud

284

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
/170	2"	N1.5	FC-G1	BC	330/.6	BS	IIaOE	B	Cyak/Eta	Focus 497 T= 71°	good
							II				
/70	2	4.4	FSI	BC	330/.6	BS	IIaOE	A	Cyak/Eta	(Red end missing) 1 piece	
/700	3"-1"	7.5	FTB-G150	BC	330/.6	BS	IIaOE	B	Cyak/Eta	67°F	good
/350	2"	5.9	FL	BC	330/.6	BS	IIaOE	A	Cyak/Eta		v sl stv
/70	2"	2.5	FTB-F650	SC	335/.6	BS	IIaOE	B	Cyak/Eta	66°F focus 498	stv
/35	0	"	"	BC	330/.6	"	IIaOE	A	Cyak/Eta		v sl stv
/70	1	2.8	FSB	BC	330/.6	"	IIaOE	B	Cyak/Eta		strong
/35	2	1	"	"	"	"	IIaOE	A	Cyak/Eta	Double 2 pieces	strong
/26?	2"	N1-2.8	FC-G1	BC	330/.6	"	IIaOE	B	Cyak/Eta	(bad judgement pos - good)	too wk
				"	"	"	IIaJ	A			

285 #1

Date 1980 Sep 10/11 Wed/Thurs Observers Wlr - Ri - KK

Emulsion Batches: IIaDe Sep 77

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45001F	Focus							Ne/W66x	5-5
45001	HD201092	$21^h 2.4$	$+38° 15'$	$21^h 20^m$	$21^h 26^m$	$0^h 35^m$ E		Ne+ND	5-
2	"	"	"	$21^h 28^m$	21:37	025 E		Ne+W66 +ND1	5-5
45003F	Focus								
3	HD216131	$22^h 45.2$	$+24° 4'$	$23^h 03$	$23^h 04$	41m E		Ne/ND	20
4	HD216131	"	"	$23^h 07$	$23^h 09$	"		"	10
45005F	Focus							Ne/ND	10-10
5	HD905	$0^h 8^m.3$	$+40° 29'$	$0^h 18^m$	$0^h 25^m$	$0^h 45^m$ E		Ne/ND	10
6	HD905	$0^h 8^m.3$	$+40° 29'$	$0^h 27^m$	$0^h 30^m$	$0^h 48^m$ E		"	5
7	HD5317	$0^h 49.9$	$+24° 1'$	$0^h 47^m$	$0^h 51^m$			"	5
45009F	Focus							Ne/ND	10-10
8	HD9138	$1^h 24.9$	$+5° 36'$	$1^h 43^m$	$1^h 45^m$			Ne/ND	5
9	"	"	"	$1^h 47^m$	$1^h 49^m$			"	5
10	"	"	"	$1^h 50^m$	$1^h 53^m$			"	"
11	"	"	"	$1^h 53^m$	$1^h 56^m$			"	"

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . photometric .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC/IT	150/.5	150/.5	IIaDe	IT1		V filter on slit	
400/5	~4"	6.2	K7II	"	"	"	"	" 2	Test	OK. Comp OK	
400/10	"	"	"	"	"	"	"	" 3	Test	STRONG., Comp	Wk.
				"	400/.28	150/.5	IIaDe	1		* Spectrum visible	
80/4		3.5	G8II	"	"	"	"	2	TEST	on image tube	ext star
80/8		3.5	G8III	"	"	"	"	" 3	"	in real time.	ext star
				"	400/.23	150/.5	"	" 1	"	Focus drawn out	
400/10		5.6	dA7	"	"	"		2	TEST	~ 1/10 sec from prev	
400/5		"	"		"	"		3	TEST		
400/5		6.14	gM2					4	"	wrong ?	
					1200/.475	150/.5		1			
400/15		6.2	K4		"	"		2	STD Vel (Test)		
400/15		"	"		"	"		3	"		
		"	"		"	"		4	"		
						"		5	"		

62
28+

Date Sept 10/11 Observers Wh.-R.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45012F	Focus.							Re ND	10-10
12	HD20365	$3^h\ 11^m$	$+49^\circ\ 51'$	$2^h\ 58^m$	$3^h\ 03^m$			"	5
13	HD 22484	$3^h\ 31.8$	$+00^\circ\ 05'$	$3^h\ 18^m$	$3^h\ 20^m$	$1^h\ 10^m$ E		"	5
14	HD 20162	$3^h\ 9.3$	$44^\circ\ 58'$	$3^h\ 30^m$	$3^h\ 36^m$.	$0^h\ 35^m$ E.		"	5
15	HD24534	$3^h\ 49.1$	$+30^\circ\ 45'$	$3^h\ 44.$	$4^h\ 02^m$	$0^h\ 50^m$ E		"	5

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC/IT	1200/.475		IIaDe	1			
400/20	3"	5.1	B3	"	"	150/.5	"	2	B*STD Vel.	V Filter	
00/15	"	5.2	F9	"	"	"	"	3	STD Vel.		
50/15	"	6.2	M2	"	"	"	"	4	Test.		
100/20	"	6.0	Ope	"	"	"	"	5	"		

289

Emulsion Batches:

Date Sept. 11/12 Observers Wlr - Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45016F	Focus	—	—					Ne/ND	10-.0
16	HD192163	$20^h 8'.4$	$+38° 3'$	$20^h 20^m$	$20^h 47^m$.	$0^h 15^m$ E.		"	5
17	HD 200527	$20^h 58.8$	$+44° 24'$	$21^h 02^m$	$20^h 06^m$	$0^h 48^m$ E		"	"
18	HD 201733	$21^h 06.4$	$+45° 6'$	$21^h 12^m$	$21^h 80^m$.	?		"	"
19	HD 203064	$21^h 14.7$	$+43° 31'$	21^h(?)	$21^h 39^m$	$0^h 30^m$ E.		"	
45020F	Focus -	—	—						20. .0
20	HD208727	$21^h 53^m.2$	$+48° 12'$	$22^h 04^m$.	$22^h 08^m$	40^m E		Ne/ND	10
21	"	"	"	$22^h 09$	$22^h 16^m$			"	10
22	"	"	"	$22^h 17^m$	23 33	15E		"	10
45023F	Focus	—	—					"	4.0
23	HD886 (8 plus)	$0^h 8^m.1$	$+14° 38'$	$23^h 59^m$	$0^h 03^m$	$1^h 00$ E			20
24	"	"	"	$0^h 3^m$	$0^h 10^m$	53^m E			20
25	"	"		$0^h 11^m$	$0^h 22^m$	41 E			10
26	"			$0^h 23^m$	$0^h 45^m$	17 E			

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . High Patchy cirrus ....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

290

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC/IT	1200/.475	150/.5	IaDe	1			
300/40	2-3 Sec	7.7	WN	"	"	"	"	2	WLa/WR.	"V" filter.	
100/15	"	6.2	M3I	"	"	"	"	3	Test		
00/20	"	6.5	B3e	"	"	"	"	4	Test.		
100/20	"	4.99	O8	"	"	"	"	5	Test		
				"	1200/.200	"	"	1			
100/5		6.33	A0	"	"	"	"	2			
400/10		"	"	"	"	"	"	3	I-R Exposure Test -		
400/20		"	"	"	"	"	"	4	OK		
				"	1200/.100	"	"	1			
00/20		2.83	B2 IV	"	"	"	"	2			
400/40		"	"	"	"	"	"	3	IZ Exposure Test -		
400/50		"	"	"	"	"	"	4			
100/100								5			

291

Date Sept 11-12 (cont'd) Observers WH-RS

Emulsion Batches:
IIaD c 27.20
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
45027F	Focus	—	—					Ne/nD	45 sec
27	HD13161 (B7 Ia)	2h 3m.5	+34° 31'	1h 44m	1h 58m	1h 02 E		"	20
28	"	"	"	1h 58m	2h 14m	15m E			20
✓ Hg2871	Hg Arc				15 min	0	D2 5958	D2 5958	D2 5958	
45029F	Focus	—	—						
29	HD19356 (B7 Ia)	3h 1m.6	+40° 34'	2h 50m	2h 30m	1h 27m E		Ne/nD	1 min
30	"	"	"	2h 35m	2h 33m	1h 24m E		"	5
31	"	"	"	2h 35m	2h 35m	1h 22 E			
32	"	"	"	2h 37m	2h 37m	1h 20 E			5
45033F	Focus	—	—						
33	HD16761	2h 56m.0	+26° 4'	2h 53m	3h 07m	14m E			6
34	HD19756	3h 5m.5	+42° 0'	3h 12m	3h 32m	24 E			5
35	HD24534 (Am)	3h 43m.1	+30° 45'	3h 40m	4h 12m	32m E			5
36	HD26162	4h 03m 3	+19° 20'	4h 20m	4h 21m	31 E			5

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Scattered thin clouds in local area

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 50°F 84%

292

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC/I	1200/0.0	150/1.5	IIaDe	1			
50/80		3.00	A5III	"	"		"	2			v slwk
"/160		"	"					3			ok.
							"				
								1			
2/3		2.64	35I		200/.425	150/.5		2			
2/3		"	"		"	"		3			
					"	"		4			
"					"	"		5			
								1			
450/50	4"	5.86	Am					2			
450/80		5.98	35					3			
50/80		6.0	Ope					4			
150/30		6.4	K2					5	STD Dal		

293

Emulsion Batches:
T.A.F. 13050 - 07090 17 187

Date Mon Sept 15 1958. Observers B/n - R

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
45037F1	focus test							Fc/—	15
45037	HD 4142	00 38.9	+47°19'	01:31	02:05	00:41 W	+47°47	Fc/ND	12-2-1
45037T1 ✓	spot cal for plate	45037			.15 min @ 150 volts		∅4 3900	D3 4300	D2 4810

Spectr. Temp. 62°F ..... Dome Temp./Hum. 54°F ... 90% Transparency Conditions Photometric, from clear to East!

Focus ..... 1.99 .....

Spectr. Temp. 61°F ..... Dome Temp./Hum. 54°F 90%

294

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	830/1.68	B.S	IIa-E	A			
30/49	1	5.53	B5V	B.C.	830/1.68	B.S	IIa-E	B	POINT WAIT	CLOUD	Fine
							IIa-E				

295

Date Sept. 5-16. 1980 Observers Ly - Ri

Emulsion Batches:
Tri-X-E 13050-0702 ..... 18 188
Tri-X-E 13050-2092 ..... 17 191
Tri-X-E 0719-22080 ..... 13 223

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45036	focus test			18:58		00 18W	+26 46	Fe/—	15
15038	HD157462	17 18.5	+40 04	19:04	20:05	02 10W	+40 00	Fe/ND	
15038 ✓	spectral to plate	45038-39			15min	@ 13 U of H	D2 23 3900 9300	Fe 4810	
45039	HD218356	23 03.2	+24 56	20:14	20:46	02 55E	-25 53	Fe/ND	16
45040	HD222107	23 32.7	+45 55	20:56	21:21	02 51E	+46 22	Fe/ND	
45041	"	"	"	21:34	22:35	01:35E	"	Fe/—	
45042	HD219150	23 08.6	+01 39	22:52	00:00	00 11E	+02 07	Fe/ND	
45042 ✓	spectral to plate	45040+42			15min	@ 0° U of H	D4 3900	D3 ND 4810	
45043	HD219634	23 12.2	+61 25	00:04	00:44	00 12W	+61 54	Fe/ND	
45044	HD10260	01 55.2	+66 22	00:49	01 28	00 45E	+66 57	Fe/ND	
45044 ✓	spectral to plate	45041			15min	HA = 24 3900	D4 4100	ND 4810	
45045	HD7981	01 00.1	+12 39	02:26	04 50	00 06E	+18° 52	Fe/ND	
45046	HD28411	04 28.2	+13 02	04 57	05:26	00 18W	+13 14	Fe/ND	
45047	HD27137	04 30.2	+16 18	05 30	05:32	00 02W	+03 14	Fe/ND	
45047 F1	focus					00 04W	+03 14	Fe/—	

Spectr. Temp. 63°F Dome Temp./Hum. 60°F 75% Transparency Conditions Good ... v. sl. hazy

Focus 496

Spectr. Temp. ... Dome Temp./Hum. 32°F 100%

296

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				3C.	1200/-.025	150	IIaO*	A			
400/400	4"	6 2	dF8	"	"	15/3	" *	B	Triple - Blue		Str
							IIaO-E*				
400/400	2"	6 1	K0 IIIb	"	"	"	IIaO-E*	A	H+K - Ly		Fine
80/80		~5	G2 III	"	"	70/3	IIaD-E	B	H+K - Ly		Fine
50/200		"	"	"	"	"	IIaJ-E	A	"		Fine
400/400		7.5	F0	"	"	150/3	IIaD-E	B	Te Pgm.	T: 60°F F: 497	Fine
							IIaO-E				
100/100	2"	6 4	F8			130/3	IIaD-E	A	Sp Pec - Ly		Fine
100/100	2	5 6	B2			150/3	IIaD-E	B	Sp Pec - Ly		Fine
							IIaJ-E				
50/50	2"	8 2	G6V		830/.65	100/3	IIaO-E	A	Hyades - Tau	T: 59°F F: 500	Fine
100/100	2"	7 0	F5V		"	70/3	IIaO-E	B	Hyades - Tau		Fine
40/40		8 39	K5 III		"	150/5	IIaO-E	A	Std Vel.		Fine to Str
						150	IIaO-E	B		T 56°F F 500	

297
01

Date Sept 16, 1980 Observers R.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45697T1	grating tilt	to 2°						Fe/-	40s
T2	"	"						"	"
T3	"	"						"	"
T4	"	"						"	"
T5	"	"						"	"
T6	"	"						"	50
T7	"	"						"	"
T8	"	"						"	"
T9	"	"						"	"
T10	"	"						"	40
T11	"	"						"	40
T12	"	"						"	"
T13	"	"						"	"
T14	discarded	"						"	8
T15	"	"						"	8

Spectr. Temp. ....64°F..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

maximum length of program 298

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					B.C	830	150	IIIa-J-F	A		setting 950 Town 498	
					"	"	"	"	B		& grating 700	
					"	"	"	"	A		450	
					"	"	"	"	B		200	
					"	"	"	"	A		110	
					"	1200	"	"	B		875 555	
					"	"	"	"	A		525	
					"	"	"	"	B		325	
					"	"	"	"	A		125	
					"	400	"	"	B		700 598	
					"	"	"	"	A		450 1	
					"	"	"	"	B		200	
					"	"	"	"	A		0	
						150			B	BLANK TARGET	TO UV COVER 650 504	
					"	150	"	"	A		400	

#2
299

Date Sept 16 80 Observers Ri

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45047Tkb	grating tilt	test						Fe/-	8
+17	"							"	"
+18	"							"	"

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

300

Comparison Type/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe - S						BC	150	150	IIIaJ+GG395	B		150 504	
						"	"	"	"	A		0	
						"	"	"	"	B		600	

391

Mod Times

Date Sept 11-12 1920 Observers SW-J

Emulsion Batches: 6" D19 66°F ...H-N... 4" I-7300 ..... 16 50

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45048F1	Focus								
45048F2	Focus Test of Red Collimator								15 15
45049	HD 204867	21 36 15	-06 01	20:25	23.54	00 56W	-05 40.8		
45049T ✓	Spot radius - Row	45049-51			Test	45 min N D: 7030	30 min N D: 7630	30 min D: 7630	
45050	HL 209750	22 00 57	-00 48	23:02	01:17	02 44W	-00 26		30 30
45051	HD 5870 A	1 20 23	+58 46	01 25	2:07	00 44E	+89 07.5	N-1	30 30
45052	HD 213307	22 35 27	+57 54	2:18	3:40	04 43W	+58 19.6	N-1	30
45053	HD 20902	03 17 11	+19 30	3:45	4:21	00 30W	+19 46	1	30 30
45054	HD 29139	04 30.2	+16° 19	4:26	4:38	00 25E	+16 26	N-1	

Spectr. Temp. 60°F Dome Temp./Hum. 54°F / 84% Transparency Conditions Scattered

Focus 42

Spectr. Temp. °F Dome Temp./Hum. 140°F / 100% 61+

302

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/.7	RS	OPE-02E	A			
				RC	1200/.7	150/10	"	A		T = 56°F	
35	4"	3.66	gOIb	RC	300/1.9	150/.5	II-Nh	A	IR Cepl	cloudy intervals	sl wk
							II-Nh			7680 weak small piece broke off of	
321	3-6"	3.13	gIIIb	"	"	"	"	A	"	T = 52°F real fine	sl wk
1	2"	3.00	gIb	"	"	"	"	B	"	"	wk
1131		3.96	gIb	"	"	150/.3	"	A	"	T = 50°F	wk
0/350	2"	1.79	F5Ib	"	"	150/.5	"	B	"	T = 48°	sl wk
190		3.4	K5III	"	"	"	"	A	"	bl. cel.	blurred exp fine
										comparison weak on all	

303

Tues - Wed

Date Sept. 23-24.1980 Observers Ly - Tn

8m 68D

Emulsion Batches:
IIa-O-e 13050 - 07373 332
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45055	HD157482	17 18.5	+40 04	19:07	2207	4 41 W	+40 01	Fe/ND	16-16-16
45055T	Spot Cal fo	45365 - 59,		15m @ 15V		D4 3700	D3 4500	D2 4810	
45056	HD219150	23 08.6	+01 39	22:17	02:25	3 07 W	+02 08	Fe/ND	16-16-16
45057	HD10260	01 35.2	+60 32	02:30	04:10	2 25 W	+60 59	"	16-16-16
45057F	focus					2 29 W	"	Fe/-	26-26
45058	HD28911	04 28.2	+13 02	04:23	05:32	0 55 W	+15 14	Fe/ND	12-12-12
45059	HD29139	04 30.2	+16 18	05:35	05:36	0 58 W	+16 31	Fe/ND	18-18
45059F	focus					0 59 W	"	Fe/-	8-8

Spectr. Temp. 62°F ..... Dome Temp./Hum. +50F / 85% ..... Transparency Conditions ..... Fine + lt-

Focus ..... 496.5 .....

Spectr. Temp. 48.5°F ..... Dome Temp./Hum. +43°F / 95% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/400	4-6"	6.2	dF8	BC	1200/-.025	150/.3	IIaOe.	A	Triple - Bln.		str
							"				
300/170	4"	7.6	F0	BC	1200/-.025	BS	"	B	Fe Pgm	through cloud almost full. T=55°F F=498.5	V s/wk
00/290	3-4"	5.5	B8	"	"	"	"	A	Sp Bn - Ly	T=51°F F=500	Fine
				"	"	"	IIaJ	B		T. 40° Mt Fair Fringe	cont w s/ blue
100/130	3-4"	7.0	FSV	"	830/.68	"	IIaOe	A	Hyades - Tnr.		v s/wk
0/30	3"	2.4	KSIII	"	"	"	"	B	Std Oal.		s/ str
				"	"	"	"	A		Sp +503 T-48.5	ok

304

884-1101

305 Wed-Thurs

Date Sept. 24-25, 1890 Observers Are-Tn

Emulsion Batches: 098-02E-07119-10080
098-02E-07119-16090

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45060	HD 161796	17 42.5	+50 05	18:55	20:47	3:01 W		[illegible]	[illegible]
45061	HD 180583	19 12.0	+27° 45	21:01	23:20	3:55 W	+28 09	[illegible]	[illegible]
45061T ✓	Spot Calib for 45061			15 min @	15V 4810	D3 7V01 H&D	7V03 +450		
45061F1	Focus Test							Fe/—	14-14
45061F2	" "							"	14-14

Spectr. Temp. 57.5°F ..... Dome Temp./Hum. 50F/84% ..... Transparency Conditions ..hazy - thin Cirrus.

Focus ..... 496 .....

Spectr. Temp. ..... Dome Temp./Hum. 49F/94% .....

306

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/102	3"	≈7	F8	RC	1200/.7	50/.5	098 prob 3 length	A	Airfoil	The only 4 of 5 were shattered (2 pieces)	s/wk
09/310	3"	≈6	F6I-B6	BC	1200/.7	150/.5	* 098 cut	B		5 broke in camera - [illegible] 55°F Set 499-C/loud	s/wk
							"				
				RC	1200/.7	150/1.0	098	B		53° F Set 499	cent s/blue
				RC	1200/.025	"	"	B		" "	cent s/ blue

* Shattered

307

Thurs Fri

Date Sept 25 26 Observers DG - Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45062F	Focus	—	—					Pc/3mm	1s/1
45062T1	Flyeye test	—	"				+45°	"	1s/1
45062T2	Flyeye test	"	"				"	"	1s/1

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Overcast w. Fog

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

308

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Image Tube +BC	830 / 1.67	150	Ind	1			
				"				2		Comparison pair - 4h West Stolen pair - 4h East	
								3		Comparison pair - 4h East Stolen pair - 2h	

309

Date . Fri.-Sat. Sept 26-27 Observers . Arc.-R.

Emulsion Batches:
09802 07119:12092
09804 07119:26092

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
45063F	Focus test							Fe/-	
45063	HD 161796	17 42.5	+50°05'	18 48	20:58	3h 21m W	+50°05	Fe/ND Ne/-	7 14 7 14
45063T	cal for plate	45063-65			1.5 min @	15 D3 4810	7U D1 Hdk	7U D2 5430	
45064	HD 180583	19 12.0	+27°45	21:07	23:44	4h 28m W	+28°04	Fe/ND Ne/-	7 14 7 14
45065	HD 217976	22 55.9	+56°25	00:18	1:20	2h 28m W	+56°53	Fe/ND Ne/-	7 14 7 14
45066	HD 8890A	01 22.5	+88°46	1:30	1:36	0 10 E	+89°09	Fe/ND Ne/-	7 14 7 14
45067	HD 229014	23 99.9	+56°57	01:47	02.26	0h 40m W	+57°23	Fe/ND Ne/-	7 14 7 14
45068	HD 19662	02 16.9	+54°55'	02:35	5:24	3h 09m W	+55°16	Fe/ND Ne/-	7 14 7 14
45068T	spectral for plate	45066-			1.5 min @	15 D3 4810	7U D1 Hdk	7U D2 5430	
45069	HD 31964	04 54.8	+43°41	5:28	5:40	0 47 W	+43°47	Fe/ND Ne/-	7 14 7 14
45070	HD 20902	03 17.2	+49°30	5:42	5:46	2h 51 W		Fe/ND Ne/-	
45070F	focus test			03 03 34				Fe/-	

Spectr. Temp. ...54°F..... Dome Temp./Hum. ...49°F...85% (07°C) Transparency Conditions . Good with clouds o.s. of ...

Focus .....5.00.....

Spectr. Temp. .....42°F..... Dome Temp./Hum. +0.3°C.....99%

310

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/.7	150/1.0	098-02E*	A		500 T 54°F	
262	5	7.27	F8	B.C.	1200/.7	150/.5	098-02E*	B	Arc Proj.	cut short because of clouds	wk
							098-02E*				
680	>5	5.93	F6J-F6	BC	1200/.7	150/.5	098-02E*	A	"	501 50°F Clouds	sl wk
425		4.99	G0Ia	BC	1200/.7	150/.5	098-02E*	B	"	502 46°F	sl str
45		2.5	F8Ib	B.C	1200/.7	150/.5	098-02E	A	"		str
463		4.4	F5Ia+	BC.	1200/.7	150/.5	098-02E	B	"		str
6		5.4	F7I3	BC.	1200/.7	150/.5	098-02E	A		Clouds	Fine
							098-02E				
61	5	2.99	A8Ia	BC	1200/.7	150/.5	098-02E	B		503 42°F	sl str
10		2.27	F5Ib	"	"	"	"	A	Std Vel		Fine
				"	"	150/1.0	"	B		503 42°F	

311 No observing for Tours-(no clouds)

SAT-Sun

Date Sept. 27-28 Observers K.K.-J.n

Emulsion Batches: 8m 68m IIa-D e 13050 - 20090

IIIa-J-e 13 235

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45071	HD 217675 0 And	22 57.3	+41 47	23 43	23 47	00 57W		Fe/ND	18-18
45072	HD 217782 2 And	22 58.0	+42 13	23 51	00 01	01 09W		"	12-12-12
45072T	Spot Calib for 45071-76.			15 min @ 15V		D4 3900 D3 4300	D2 4810		
45073	HD 6582	01 01.6	+54 26	00 05	00 20	00 37E		Fe/ND	12-12-12
45074	HD 6961	01 05.0	+54 37	00 23	00 31	00 29E		"	18 18
45075	HD 8890 B	01 22.5	+88 46	00 36	03 06	00 56W	+89 11	Fe/ND	10-10
45076	HD 8911	04 28.2	+13 02	03 13	04 28	00 06W	+13 16	"	10-10-10
45077	HD 47105	06 31.9	+16 29	04 35	04 45	01 40E		Fe/—	24-24
45078	HD 56986	07 14.1	+22 10	04 51	05 40	01 28E		"	16-16-16
45078T	Spot Calib for 45077 -78.			15 min @	17.5V D4 3900		15V D4 4300	15V D2 4810	
45078F	Focus Test							Fe/—	26-26

Spectr. Temp. 53°F ..... Dome Temp./Hum. 50°F / 90% Transparency Conditions ... Slt. haze .....

Focus ... 502 .....

Spectr. Temp. ..... Dome Temp./Hum. 40°F / 100% + 312

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/18	2"	3.6	B6p	BC	830/-.58	BS	IIIa-e	A	15m Sp-Ht		strong *
30/35	2"	5.17	A2	"	"	"	"	B	"		good *
							"				
30/50		5.81	G5Vp	BC	830/-.58	BS	"	A	15m Sp-Ht		v sl str *
40/18	1.5"	4.50	A7V	"	"	"	"	B	"		sl str.
90/113	"	8.7	F	"	"	150/.3	"	A	"	T=52°F	fine
30/130	"	7.0	F5V	"	"	150/.5	"	B	Hyades-Tmr		v sl str comp str.
40/112	2"	4.9	A0V	"	1200/-.025	"	IIIaJ-e	A	15m Sp Ht	T=51°F Set 500	Fine
40/150	2"	3.9	F0V	"	"	"	"	B	"		Fine
							"				
				BC	1200/-.025	240	IIIaJ-e	A	Set 500	T=48.5°F	
								*	slicer central shadow filled in		

313

Date Sun/Mon 28/29 Sept 1930 Observers Bln-Tn

Emulsion Batches:
5" 60° IIIa-J E 07119 22090
8"x6" IIaO-e 13050-20090
5" 98° e 07119 26090

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45079F	Focus Test							Fe/-	26-36
45079	HD200120	20H 56.4M	+47° 08'	18 32	19 23	01 22E	+47° 30'	Fe/-	16-16
45080	HD16732	17H 47M.4	+48° 25'	19 30	21 46	04 10W	+48 32	Fe/ND	12-12-12
45080T1	Spot Calc for 45079, 83,			15 min	@ D4	17.5V 3900	15V 4300	15V 4810		
45080T2	Spot Calc for 45080, 84-86,			15 min	15V	D4 3400	D3 4300	D2 4810		
45081	HD200120	20 56.4	+47 08	23 12	00 13	3 28W	+47 34	Fe/ND No/-	7-7-7 7-7-7
45082	HD5394	00 50.7	+60 11	00 17	00 25	00 16E	+60° 42'	Fe/ND No/-	10-10 10-10
45082T	Spot Calc for 45081-82								
45083	HD5394	00 50.7	+60° 11	00 33	00 38	00 03E	+60° 42	Fe/-	24-24
45084	HD4142	00 38.9	+47° 19'	00. 43	01 06	00 36W	+47° 48'	Fe/ND	12-12-12
45085	HD11606	01 48.8	+58 47	01 34	03 17	01 37W	+59 12	"	12-12-12
45086	HD30650	04 44.4	+43 29	03 33	03 44	01 10E	+43 36	"	12-12-12

Spectr. Temp. 55°F ..... Dome Temp./Hum. 50°F / 60% Transparency Conditions ..thin cloud.....

Focus ..502.....

Spectr. Temp. 44°F ..... Dome Temp./Hum. 38°F / 93% 314

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIIa-JE	A		T=55°F F=502	
40/90	3	4.51	B1e	BC	830/.68	BS	IIIa JE	B	Be-Bln	Cloud 59 Cyg	slgty fine dust
300/237	3-4	6.35	A	BC	830/.68	BS	IIIa-e	A	Be-Bln	Thin cloud Lyr 30m Cloud 88 Her T=52°F @ end	v sl stv. dust!
							IIIa J-C				
							IIIa-e				
70/100	~3"	4.51	B1e	BC	1200/.7	150/9	093-02E	A	Be-Bln	T=50°F F=503	Fine
40/123	3"	2.43	B1e	BC	1200/.7	150/9	098-02F	B	Be-Bln		Str
							098-02F			T	
40/60	3	2.43	B1e	BC	830/.68	BS	IIIa JE	A	Be-Bln	T=48°F F=503	Str
80/100	3	5.53	KEV	"	"	"	IIIa-e	B	"		strong
200/201	3"	7.08	KEV	"	"	"	"	B	"		Fine
300/253	3-4	7.47	KEV	"	"	"	"	A	"	T=46°F F=504	Fine

315

Date 09-12-1980 Observers Bi-Ane-Mr

Emulsion Batches: 098-02E 07119-26090 20 122

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45087	HD 224014	23 49.4	+56° 57	21:25	22:06	1:21 E	+57° 05'	Fe/ND Ne/-	7 7 7 7
45088	HD 203156	21 15.4	+37° 49	22:18	23:00	2:07 W	+38° 10'	Fe/ND Ne/-	7 14 7 14
45088V	spectral for plate 45087+88			15min @		150 D3 7U D1 7U D2 480 Hα 54 50			
45088F	focus test							Fe/-	14/4

Spectr. Temp. ....69°F..... Dome Temp./Hum. 17°C...94%... Transparency Conditions .....

Focus .....495.....

Spectr. Temp. ....68°F..... Dome Temp./Hum. 97%

316

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/300	3	4.4	F8Tap	B.C.	1200/.7	150/1.5	098-02E	A	Arc Prog	"V" Filter	fine
400/25	3	5.75	F2	B.C.	1200/.7	150/1.5	098-02E	B	"	"V" Filter, Clouds	wk
							098-02				
				BC	1200/.7	150/1.0	098-02	A		68°F 495	

317

Date 08.12.3.1950 Thurs Fri. Observers ..Bla.-Ri./.Lake.-Ri.....

Emulsion Batches:

8m 68° T.A.F. 13030-20090..... 22 200

5m 68° 095 N. 07109-07190.... 22 196

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45089	HD 197419	20 38 5	+35° 06	21:08	21:46	01 35 W	+35°26'	Fo/ND	12 - =
45090T	spectral	for plate 45089-45092				15mm @	15 Volts 39	D4 D3 D2 00 4300 48	
45090	HD 219920	22h 36m 6	+23° 19'	21:50	23:15	01 05 W	+23 41'		
45091	HD 9142	00° 98' 7	+19°19'	23:13	23:27	00 45 E	+19° 45'		4-11
45092	HD 210839	22h 08.1	+38°55	23.31	23:38	01 58 W	+59° 19	F/ND	12 12
45093	HD 203064	21° 14° 7	+13° 2'	23:40	23 47	02 59 W	+14° 52'	F/ND	7-11
45093T	from test		=					F/-	12 0
45094	HD 170913	20h 22	+35°31'	0h 6m	0h 25m	4h 5m W	+35°46	Fo/ND N2	4- 3 4 2
45094T	HD 214419	22h 32.9	+56°28'	6h 31m	1h 35m	3h 30m W.	+56°51	Fo/ND N2	4 3 4 2
45095T	spectral cal. for plate 45093-95					15mm @ 15	D0 Volts 3900	D3 D2 4300 4810	
45095F	from test							F/ND N2	15-11 15-12
45095T2	spectral cal for plate 45094+95				15mm @	15 D3 4210	5 D1 11	7 D2 54 50	

Spectr. Temp. 60°F ..... Dome Temp./Hum. 11°C ... 88% Transparency Conditions .....

Focus ..... 5.50 .....

Spectr. Temp. ..... Dome Temp./Hum. 10°C ... 86% 318

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/700	2	5.52	B2Ic	B.C.	830/.680	B.5	IIaO-E*	A	RUNAWAY*		vs/str.
							IIaO-E*				
420/300		5.37	B-IV	B.C	830/.68	B5	IIaO*	B	Runaway*		v sl str
30/60	2	5.29	B2IV	BC	830/.68	B5	IIaOE*	A	Runaway*		v sl str
50/20		5.29	06f	BC	830/.68	B5	IIaOE*	B	Runaway*		v sl str.
30/60		5.13	09V	BC	830/.68	B5	IIaOE*	A	Runaway*		sl str.
				BC	830/.68	B5	IIaO-E*	B		57°F 506	
100	2	7.7	WN7	BC	400/.56	250/.5	098-02	A	WR	V Faint 57°F 506	sl wk
27		8.94	WN7,06f	BC	400/.56	250/.5	098-02	B	WR	V Faint, Star Pair @ 1.0" Superposed by cloud	weak
							IIaO-E*				
				BC	400/.38	250/.5	098-020	A		55°F 506	

315

Date ...Oct. 7/8 52..... Observers ..Wh./Bj.a./..Ri.....

Emulsion Batches:
5m D19 69° IIaFe 0521.8-07070 24 00
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45096F	Focus	—	—					Ne/ND	20/10
45096	HD203064	21h14m.7	+43°31'	20h24	20h28m	0h01m E	+43°55	Ne/ND	10
97	"	"	"	20h26m	20h28m	0h01m W	"	"	"
98	"	"	"	20h29	20h31m	03 W		"	"
99	"	"	"	20h32m	20h35m	0h07m W		"	"
45100F	Focus								F/10
45100	HD193793	20h17m.1	+43°32'	21h14m	21h29m	2h00m W	+43°50'		10s
101	"	"	"	21h31m	21h53m	2h24m W	"	"	10s
102	HD190918	20h2m.3	+35°31'	22h00	22h27m	3h14m W			10s
103	HD192163	20h8m.4	+38°3'	22h35m	23h50m	4h08m W	+58°36'		10s
45104F	Focus								20/20
45104	Spot on to plate	17m.2	+41°2'		15m @ 7U	D1 5450	D1 5450	D1 3450	
45104T1	Flexure Test	—	—				43°50'	Ne/ND	10s
" T2	"	—	—				"	"	10s
" T3	"	—	—						
" T4	"	—	—						

Spectr. Temp. ..... Dome Temp./Hum. 10°/94% Transparency Conditions ... Very light Haze .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

320

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				IT+RC	1200/.475	150/.5	IIIaF	1		V Flt	
100/5	3"	4.99	08	IT+RC	1200/.475	150/.5	"	2	Image tube		
20/10		"	"	"	"		"	3	exposure		
80/20		"		"	"	"	"	4	calibration		
80/40		"		"	"	"	"	5			
					"	"	"	1	WR		Comp
100/40					"		"	2	+ Expo		
100/80		7.1	WC+		"	"		3	cal.		
60/80		7.4	WN+		"	"		4			
100/80		7.7	WN	"	"	"	"	5			
								1		Standards	
							IIIaF				
								2	FLEXURE	Comparison - meridian (zenith) Stellar 4h E	
								3	TESTS	Comparison Zenith Stellar 4h W	
								4		Comparison Zenith Stellar 0° -30°	
								5		Comparison 0° 3/10 W Stellar 0° 10 4 E	

321

Date Oct 7-8 60 Observers W.L./R.

4" 69° Emulsion Batches: J.a.D. 1-A 32 140

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45104 F2	Focus	—	—					Na/NS	2
104	HD 22468	$3^h 31^m.5$	+0° 16′	$2^h 31^m$	$2^h 53^m$	$0^h 10^m$ W	+0° 32′	"	10
105	HD 22484	$3^h 31^m.2$	+0° 05′	$2^h 58^m$	$3^h 01^m$	$0^h 15^m$ W	+0° 20′	"	"
106	HD 26162	$4^h 3^m.3$	+19° 21′	$3^h 07^m$	$3^h 17^m$	$0^h 0^m$	+19° 33′		
107	HD 7927	$1^h 13.6$	+57° 42.	$3^h 30^m$	$3^h 38^m$	$3^h 10^m$ W	+59° 05′	"	15
46104F	Focus	—	—					"	2
45108	HD 7927	$1^h 13.6$	+57° 42′	$4^h 14^m$	$4^h 16^m$	$3^h 50^m$ W	+58° 05′	"	2
45109	HD 15161	$2^h 3^m.5$	+34° 31	$4^h 25^m$	$4^h 27^m$	$3^h 10^m$ W	+34° 55′	"	20
110	HD 39650	$5^h 49^m.0$	+13 44′	$4^h 48^m$	$5^h 19^m$	$0^h 15$ W.		"	20
111	HD 39650			$5^h 20^m$				"	10
45111V	spot on the plate				13m e 7h	D2 5450	D2 5450	D2 5450	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

322

Comparison e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					RC+IT	1200/.4	150/.5	IIIaF	1		"V" filt.	
		3"	6.01	dG				"	2	Blu	Some cloud + wind	
			4.25	F8V				"	3	STD Vel.	Faint light	
			5.50	K1III					4	STD Vel		
			.85	FOIa		1200/.200	150/.5		5	ARC/TEST exposure		
						"	"	IIaD	1			
			4.95	FOIa					2	ARC TEST exp.		
			3.00	A5III		1200/.00			3	Cal Th-Ar Test exp		
		"	7.9	OeJ		300/.435			4	Vel.		
									5	Exposure		
					W			IIIaJ	one	star		

Pg #1 Wyd - Tucs

373

Date Oct 8-9/80 Observers Myd - Tuc - Ave

Emulsion Batches:

8m 69° IIaO E 13059 - 28090

5m 69° C55 aE 31117 - 01100 23 203

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
45112F1	Focus Test							Fe/—	
F2	" "							Fe/—	
F3	" "							Fe/—	
45112	84 Her HD 161239	17 39.3	+24° 22	18 50	19 15	2 25 W	+24° 21	Fe/ND	13
45113	HD 181655	19 16.1	+37° 09	19 19	19 50	1 25 W	+37° 17	"	12-13
45113T	Spot Calc	for	45112-16		15	15	37	03	12
45114	16 Cyg A HD 186408	19 39.1	+50° 18	19 55	20 24	1 36 W	+50° 30	Fe/ND	11-12
45115	16 Cyg B HD 186427	"	"	20 28	21 13	2 25 W	"	Fe/ND	12-13
45116	HD 191854	20 06.9	+43° 39	21:22	23 05	3 49 W	+43° 54	Fe/ND	12-13
45117	HD 203156	21 15.4	+37 49	23 24	00 46	4 22 W	+38 12	Fe/ND	7 7
45117T	Spot Calc	for 45112	-24,						
45118	HD 217476	22 55.9	+56 25	00 55	01 21	3 17 W	+56 51	Fe/ND	7 7
45119	HD 224014	23 49.4	+56 57	01 26	01 50	2 55 W	+57 24	Ne/—	7 7
45120	HD 8890	01 22.6	+88 46	01 55	01 59	0 31 W		Fe/ND Ne/—	11-11
45121	HD 7927	01 13.8	+57 47	02 07	02 46	2 22 W	+58 08	"	7 7 7

Spectr. Temp. 62° Dome Temp./Hum. 55°F/75% Transparency Conditions ...

Focus 497

Spectr. Temp. ... Dome Temp./Hum. .../...

324

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				RC	1200/.7	120μ	IIIaF	A		62° 497 RHS UV emp. box	Center fairly sharp corners fairly sharp
				"			"	B			
				BC	830/.68	120μ	"	B	T=61.5°F	Set 499.5	OK
/80	3"	~6	G6	BC	"	120μ	IIa-O	A	Solar Type		perfect(!)
00/170	2-3	6.8	G8	BC	"	"	"	B	"		OK w/flux
							"				
00/80		6.6	G2	BC	830/.68	120μ	"	A	Solar Type		fine
0/80		6.7	G5	"	"	"	"	B	"		fine (50%)
00/350	3"-4"	7.9	G5	"				A	"	T=58° Set 501	flux report
00/150	3"	V= 5.5	F2	"	1200/.7	120μ	IIIaF	B	Hi Prog	V Line T=55°F Set 501	fine
							"				
00/150	2"	V= 4.99	G0	BC	1200/.7	150μ	"	A	Hi Prog		SI Str fine
0/150	3"	V= 4.4	F2	"	"	"	"	B	"		SI str
00/131	2"	V= 5.3	F2	"	"	"	"	A	"		str
00/150	3"	V= 4.95	F0	"	"	"	"	B	"	T=51° Set 502	fine

OVER →

V9 #2

325

Date Oct 29 Cont Observers ARE - TM

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
45122	HD14662	02 16.9	+54 55	02 51	04 46	03 18W	+55 16	Fe/ND Ne/—	7.7 7.7
45123	HD31964	04 54.8	+43 41	04 53	05 01	00 55W		"	11-1 11-1
45124	HD20902	03 17.2	+49 30	05 10	05 13	02 44 W		"	11-1 11-1

pectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . Photometric .....

ocus .....

pectr. Temp. ...45°F..... Dome Temp./Hum 35°F / 95% .

xp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/163	4"5	V= 5.40	F7½	BC	1200/17	✱ 1501.5	098 IIaE	A	Arc prog	w/ V filter type 2 on slit	Fine
70/30	"	V 2.99	A8Ia	"	"	"	"	B	"	sl dirt? V sl str	
46/30	"	2.27		"	"	"	"	A	std vel	sl gas orbit? sl str	

327 Pg #1

Date ...Oct. 9/10..... Observers ..Wh./T.m./S.i.S...

Emulsion Batches:
3"-65 ..Na0-e..13050—20910 20210
5"-65 ..098-E..0719—01108 23 F6
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45125	HD193793	20h17m.1	+43°32'	18h40m	18h49m	0h35m E	+43°50'	Fe ND	3-3 3
45126	HD192163	20h8m.4	+38°3'	18h59m	19h15m	0h01 W	+38°20'	Fe ND	3-3 3
45127	HD193077	20h13m.3	+37°7'	19h25m	19h55m	0h37m W	+37°23'	Fe-ND	3-3 3
45127T	Spot Cals for 45125—30, 35, 36				15 min @	D4 15V 3900	D3 4300	I-3 4-0	
45128	HD214419	22h32m.9	+56°23'	20h00m	20h57	0h39m E	+56°49'	Fe ND	3-3
45129	HD190918	20h2m.2	+35°31'	21h07m	21 16	2 08W	—	Fe ND	3-3 3
45130	HD191765	20h6m.5	+35°53'	21h30m	22h10m	2h59W	+36 10	"	3-3 3
45130F	Focus	—	—	—				Fe	—
45131	HD191765	20h6m.5	+35°53'	22h27m	23h07m	3h56 W	+36°10'	Fe ND Ne	4 4
45131E	Focus	(Taken	on 45130F)					Fe	7-2
45131T	Spot Cals for 45131—34				15 min @	15V03 4810	7V01 Hg	7 E0 54 30	
45132	HD193793	20h17m.1	+43°32'	23h15m	23h22m	4h01 W	+43°46'	Ne Fe ND	4 4
45133	HD190918	20h2m.2	+35°31'	23h29m	23h36m	4h29m W	+35°45'	Ne Fe ND	6 6
45134	HD192163	20h8m.4	+38°3'	23h47m	0h03m	4h51m W	+38°18'	Ne Fe ND	6 6
45135	HD203064	21h14m.7	+45°31	00h15m	0 27m	4h09m W	+43 56	Fe ND	13-1

Spectr. Temp. ...50°F..... Dome Temp./Hum. ..8°C/77%..... Transparency Conditions ..Photometric.....

Focus ....5.08..... 6°C/85% at 0h EST

Spectr. Temp. ..... Dome Temp./Hum. .....

328

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/80	5"	7.1	WC+	BC.	150/.5	250/.5	IIaO-c	A	Wh WR.	Focus 508.	fine
00/80	4.5"	7.7	WN	"	"	"	"	B	"		"
00/80	"	8.1	WN+	"	"	"	"	A	"		"
							"				
00/160	"	8.94	WN2+00	BC	150/.5	250/.5	"	B			vsl wk
00/80	"	7.4	WN+	"	"	"	"	A	"	Focus 509 48°F	fine
00/80	4"	8.2	WN	"	"	"	"	B	"		fine
				"	"	"	098	A	—	Set 509 Temp 46°, OK?	
00/60		8.2	WN	"	400/.38	250/.5	098e	A	Wh WR	"V" filter Focus 510	vv wk
				"	"	"	098c	A	I-45° Set 510	has 'V' filt	
							098c				
00/31		7.1	WN+	"			"	B	Wh WR.		wk
00/90		7.4	WN+	"	"		"	A	"		vwk
00/30		7.7	WN	"	"			B	"	Temp =	WK
00/150	3"	9.72	CNT		300/.42	35	Ilaf0	I	Cloudy	Temp 40°F Focus 506	fine.
										Over	

329 II 7 Cont

Date Thurs/Fri. Oct. 9/10. Observers Weir / Jr. / G.S.

Emulsion Batches: I-N 2 13050 - 09110 20 200

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
45136	HD 201910	21h 02.5m	+40° 47'	0h 30m	01h 54m	5h 41 W	+41 08	Fe/ND	7½-13
45137	HD 414.2	00h 52.9m	+47° 19'	1h 58m	02 11	2 26W	+47 48	Fe/ND	7½-13
45138	HD 11606	01h 48.8m	+58° 47'	2h 18m	02 49	1 54W	+59 12	Fe/ND	13-13-13
45139	HD 16429	02h 33.1m	+60° 51'	2h 58m	04 34	2 53W	+61 13	Fe/ND	13-15-13
45139T V	Spot Calc. for 45137 - 43			15 min @ 15V		D4 3900	D3 4300	D2 4200	
45140	HD 30650	04h 44.4m	+43° 24'	4h 42m	05 31	1 39W	+43 31	Fe/ND	13-13-13
45141	HD 29866	04h 37.3m	+40 36	5h 34m	05 46	2 02W	+40 46	"	13-13-13
45142	HD 36576	05h 27.7m	+18° 28'	5h 49m	05 58	1 24W	+18 33	Fe/-	6-6
45143	HD 29139	04 30.2	+16 18	5h 59m	06 00	2 23W	+16 29	"	6-6

Spectr. Temp. 41°F ..... Dome Temp./Hum. ..... Transparency Conditions Photometric .....

Focus 5016 .....

Spectr. Temp. ..... Dome Temp./Hum. 37°F / 72% 330

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/301	3	7.27	B5V	BC	8.56/.58	BS	IaO-e	B	Running ++		fine
40/30	2-3"	5.53	B5V	"	"	"	IaO-e*	A	"		fine
400/300		7.08	B2IIne	"	"	"	"	B	"	Temp = 45°F	fine
400/304	2	8.29	O9.5III	"	"	"	"	A	"		sl wk
							"				
400/299	2"	7.47	B6V	"	"	"	"	B	"	T=45°F	fine
40/30	<2"	5.87	B8IVn	"	"	"	"	A	"		Fine
40/30	"	5.71	B2II	"	"	"	"	B	"		Fine
40/42	"	2.39	K5III	"	"	"	"	A	st/live/	T=41°F	Fine

331

Date Fri/Sat Oct 10/11 Observers Tn/Gis/Kim

8m 68.5 Emulsion Batches: Jade 1.1050-2946 22 212

Plate No.	s/	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45144		HD 186791	19h 41.5m	+10° 22'	18h 14m	18h 18m	00h 26m W	+10° 36'	Fe/ND	20s
45145	✓	HD 187567	19h 45.4m	+7° 39'	18h 23m	18h 56m	00h 05m W	+7° 53'	Fe/ND	17-12 -12
45145T		Spot Cal'n for 45144			15min @ 15V		D4 3900	D3 4300	D2	
45146		HD 188439	19h 50.1m	+47° 33'	18h 59m	19h 32m	00h 41m W	+47° 49'	Fe/ND	12-7½
45147		HD 189957	19h 57.6m	+41° 46'	19h 38m	21h 29m	02h 30m W	+42° 00'	Fe/ND	15-12½
45147F		Focus Test							Fe	15s

Spectr. Temp. 44°F ..... Dome Temp./Hum. 47°F / 81% Transparency Conditions Photometric at first

Focus ...504.....

Spectr. Temp. 44°F ..... Dome Temp./Hum. 45°F / 77%

332

Comparison pe/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		40/38		2.72	K2 III	BC	830/.68	BS	IIaO e	A	Std. Vel.		* Fine
		00/151	4"	6.42	B2.5 IIIe	"	"	"	"	A	Runaway *		Fine
									"				
		40/353	"	6.18	B2.5 IIIe	"	"	"	"	B	Runaway +		* S/str
		00/269	"	7.82	B0 III	"	"	"	"	A	Runaway +	Clouds	* v.s/wk
						"	"	"	098	A?		moon rise 30°	
											All plates except 45145 showed		
									a sharp shadow at the edge of the coma				
									shadow of BS. Like a "dot" spectrum				
									seen on slits.				

333

Date Sun/Mon Oct 12/13 Observers T.h./Ars/

5m 68d Emulsion Batches: 036 m5 0704 09130 22 21

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45148	HD 203156	21 15.4	+37° 49	23h 37m	00 29	4 30W	+38 14	Fe/—	7 / 7
45148T	Spot Cal for 45148 —			15m @ 480	1.1V D3 7.0V Hz	7.0V 5450			
45149	HD 204756	22 35.9	+36 25	00h 37m	00 55	3 05 W	+36 55	Fe/—	11 / 11
45149F1	Focus,		(last [illegible] 49)					Fe/—	5[illegible]
Oct 13	[illegible]	[illegible]							
45149F2	Focus [illegible]	[illegible]	[illegible]	[illegible]	Set 507	0	+33°	Fe/—	25 25
F3	"	"		"	Set 497			Fe/—	[illegible]
F4	"	"		"	Set 497			"	"
F5	"	"	"		Set 507			"	"
F6					Set 509			"	"
F7					Set 494			"	"

Spectr. Temp. ...47.6°F..... Dome Temp./Hum. ...[illegible]... Transparency Conditions .....[illegible]....

Focus .....5.02.....

Spectr. Temp. ...43.5°F..... Dome Temp./Hum. ...[illegible]...

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
273	4"	V= 3.75	F2	BC	1200/7	120μ	098-02	A	Ave Prog.	V filter, clouds	comp str v sl wk
							"				
10	4"	V= 4.44	GOL	BC	600/7	60μ	"	B	Ave Prog	cloud	comp str sl wk
				"	"	"	IIaF	A			
Note	Slicer	Comp	fld lens in		(correct lines	lines on roll)			Note	VG filter found to have	
				BC	1200/7	120μ	IIaF	B	T=44°F	fallen off,	
				"	1200/7	"	"	F	"		
					1200/4.025	"	"	B	"		
					"	"	"	E	"		
					600/6.6	"	"	B	"		
					"	"	"	E	"		
		45	49	F2→F7	two lost		Oct 13		ok		

335 Sat-Sun Cloudy to Tue

Date Oct. 18-19/80. Observers A.C.-T.

Emulsion Batches: 098-05 0714-29100 21 183

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45150,	HD224014	23 49 A	+56° 57	00:41	1:03	2:43 W	1	Fe/—	5 5
45150T	Spot Calc for 45150				15V 03' 4800	7h01 7h	56 52 5153		
45150F	Focus Test							Fe/—	25

Spectro... Focus... Spectr...

Exp Mtr

Spectr. Temp. 54°F ..... Dome Temp./Hum. 47°F/80% ..... Transparency Conditions ..... Cloudy .....

Focus ..... 4.99 .....

Spectr. Temp. 54°F ..... Dome Temp./Hum. 47°F/83% .....

336

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/135	3"	1.4	TEIap	BC	1200/7	150/5	098-02E	B	1.0 prism	* V-filter	fine
							"				
				BC	1200/7	150/10	IIIaF	B		* filter-ie (no fl lens)	cal blue

Comparison Type Filter

337

Date Oct. 19-20/80 Sun/Mon Observers Tnr./Tn.

Emulsion Batches:
Tech C 13050 - 0 1 0 20 20
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45151	HD 186791 (8 Mg2)	19h 41.5m	+10° 22'	19 33	19 37	1h 28m W	+10 33.7	Fe/	20-2
~~45152~~	~~HD 203064 (6 Mg2)~~	~~21 14.7~~	~~+43 31~~	~~20-03~~			~~+43 52.6~~	"	
~~45153~~	~~Spec Cal~~	~~For 45151~~			~~Same as 45151~~				

Spectr. Temp. 48°F ..... Dome Temp./Hum. +40°F/92% Transparency Conditions Cloudy .....

Focus 503 .....

Spectr. Temp. ..... Dome Temp./Hum. /95%

338

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		50/63	4"	415	K2I	BC	830/68	85	IIaOe	A	steel		Fine
		-00/		498	08I	"	"	"	"		Bln Runaway		
									Tole				

339 Tues/Wed

Date Oct 21/22 Observers Rm-Tk-Bj

Emulsion Batches: 8h 48° IIaO-e 13250 09100

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
45152	HD 126688 SUCyg	19h40.6	+29°01	20 17	20 46	02 47W	29°18	Fe/ND	13-2
45152F	Focus Test							Fe/—	23-2

Spectr. Temp. 46°F ..... Dome Temp./Hum. 39°F/- ..... Transparency Conditions .....

Focus ....505.....

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

340

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/159	4"	6.9-7.7	F0-G1	BC	830/.68	BS	IIaOE	A	Cepheids/Evans	Focus 505	wk
				"	"	"	IIIaF	A		45.5°F.	contsrtd -slope

341

Date Oct 22/23 Observers Wh/Ri/Wr//Are

Emulsion Batches:
0928.22 ... 20 163
... 19100 19 180

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
45153	HD 191765	20h 6m.5	+35° 35'	22h 17m	23h 13m	4h 54m W	36° 12'	ND/ND Fe/-	4-4 4-
45154	HD 193793	20h 17m.1	+43° 32'	23h 22m	23h 43m	5h 13m W	43° 54'	ND/ND Fe/-	4-4 4-4
45155	HD 22484	3h 31m.8	+0° 5'	23 54	23h 57m	1h 48m E	+0° 23'	Fe/ND Fe/-	6 6
45155 F1	focus							Fe/ND Fe/-	5 5 5 5
45156	HD 217476	22 55.9	+36° 25	00 19	0 45	03 35 W	+56° 55	ND/ND Fe/-	5.5 5 5
45156 F1	spot on the plate 45153 - 45158				15min @	15 UD3 4810	7 UD1 Hd	UD2 5450	
45157	HD 18662	02 16.9	+54° 55	00 51	02 15	01 41 W	+55° 19'	Fe/ND Ne/-	7 5 7 5
45158	HD 17931	~~3h 02'.1~~	~~+60° 11~~	02 20	5 33	~~7h 23m W~~	+60° 19	Fe/ND /-	6 6
45159	HD 31964	04h 31.5	+49° 41	5:41	5:46	2h 35 W		Fe/ND Ne/-	8 8
45159 F1	spot on the plate 45159				15min @	15 UD3 4810	7 UD1 Hd	UD2 5450	
45160	HD 20902	03h 17.2	+49° 30'	5:50	5:53	4h 19 W	+49° 52	Fe/ND Ne/-	7 7 7 7
45160 F1	focus							Fe/-	15 15

Spectr. Temp. 45° Dome Temp./Hum. 38°F/80% Transparency Conditions Photometric

Focus 509 3105 342

Spectr. Temp. -01°C Dome Temp./Hum. /85% V filter for whole night

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/20	3	8.2	WN	BC	400/.38	250/.5	098	A	Wh. WR		sl weak
20/20		7.1	WC+	"	"	"	"	B	"		vsl weak
40/8	"	4.3	FBV	"	"	"	"	A	STD Vel.		good
				BC	400/.38	250/.5	098	B		509 T 420F	
20/3	3	4.99	GOI	BC	1200/.7	150/.5	098-102	A	Arc/Proxy	503 420F	vsl strong, scratched
							098-02E				
40/20		5.40	F35	BC	1200/.7	150/-	098-102	B	"		fine
20/40?		2.21	F5	BC	1200/.7	150/.5	098-102	A	/	503 504	good
40/20		2.99	A8G	BC	1200/.7	150/.5	098-102	B	"	30°F 505	vsl strong
							098-02E*				
40/25		2.27	F5I5	BC.	1200/.7	150/.5	098-102	A	stvel	36	vsl strong
						150/1.0	098-02E*	B		36°F 505	

-3 #1
343

Date Jan 9-10 23-24 Observers L.A. - R.E. - Rann / G.S-B

Emulsion Batches:
5" 68° 2F-02 01119 - 19100 ..... 19 176
5" 68° 5F-E 01119 - 22090 13 233
8" 68° 7F-E 13050 - 19100

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45161 F1	focus					1 15 E	+33 41	Fe/-	.5
45161	HD200120	20 56.4	+47 08	17 57	18 14	0 51 E	+47 30	Fe/ND Nb/-	6 6-6 6
45162	HD219150	23 08.6	+01 39	18 21	19 48	1 29 E	+02 08	Fe/ND Nb/-	6 6-6
45163	HD5394	00 50.7	+60 11	20 05	20:12	2 48 E	+60 39	Fe/ND Nb/-	
45164	"	"	"	20 29	20:30	2 22 E	"	Fe/-	
45165	HD200120	20 56.4	+47 08	20:54	21:27	2 22 W	+47 28	Fe/-	
45166	HD218356	23 2 14	+24 56	21 39	22:19	1 07 E	+25 25	Fe/ND	16
45164T	spectral to plate 45161	-63,78		15 min @	15U D3 48.0	D17U Hdx		D2 7U 3 45	
45166T	spectral to plate 45164	-65,37		15 min @	17.5U D4 39.0	15U D4 9 30			
45167	HD222368	23h 34m 48s	15° 5'	22:32	22.38	00 52 W	+05 34	Fe/ND	16
45168	"	"	"	22.41	22.46	01 00 W	"	-	16
45169	"	"	"	22.50	22.55	01 10 W	"	"	16
45170	HD219634	23 10 2	+61 25	23:06	23:27	02 03 W	+61 55	Fe/ND	16
45170F1	focus test							Fe/-	20
45171	HD4442	00 38.9	+47 19'	23:49	23:58	01 07 W	+47 48	Fe/ND	12-12

Spectr. Temp. 43°F Dome Temp./Hum. 40°F 80% Transparency Conditions Photometric

Focus 503

Spectr. Temp. Dome Temp./Hum.

344

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/7	150/100	098-02E	A			
40/80	3-4	4.5	Ble	B.C.	"	150/7	"	B	Be - Bln		fine
30/275	3	7.6	FO	"	"	150/3	"	A	Be Pgm		good
40/100	2-3	2.4	BOe	"	"	150/9	"	B	Be - Bln		guiding
40/124		"	"	B.C	1200/.025	BS	IIaJe	A	Be - Bln	42°F 502	F-o *
40/305	2 3	4.5	Ble	"	"	"	"	B	Be - Bln		"
30/600	2	6.14	AOIa	"	"	"	IIaJ-E	A	H+K - Ly	40°F 503	s/ str.
							098-02'				
							IIaJ-E				
40/32		1.64	F3V	B.C.	200/.025	BS	IIaJ-E	B	Std Hel	40°F 503	fine
40/80		"	"	"	"	"	"	A	"	" 505	F-o
40/70		"	"	"	"	"	"	B	"	" 501	fine
30/300	2	6.5	B8	"	"	"	"	A	Sp/Bi - Ly	" 503	" *
				B.C.	"	"	IIaJ-E	B		95°F 503	
100/305	3	8.62	B5I		830/1.62	"		B	Absorption *	39°F 506	F-o

F3:"2

345 Thurs/Fri

Date Oct. 23-24 Observers [illegible]

Emulsion Batches:

[illegible] 20 208

[illegible]

[illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45172	HD 11606	01h 42.0	+58° 47'	00:05	00:33	05° [illegible]	159° 13	Fe/ND	2-2-2 12
45172 F	spot on 1 h plate	1s166 - 79.			15 min @ 5W.E		35 m	[illegible]	[illegible]
45173	HD 16429	02h 33.1	+60° 51'	00:37	02:10	01 24 W	+61 14	F/ND	12-12 12
45174	HD 29866	04 37.3	+40 36	02:15	[illegible]	[illegible]	[illegible]	F/ND	[illegible]
45175	HD 30869	04 46.2	+13 29	02:40	03:14	00 16 W	+13 41	Fe/ND	16-16-16
45176	HD 41335	05 59.3	-6 42	03:19	04:31	00 21 W	-6° 40'	Fe/-	8-8-8
45177	"	"	"	04:36	05:05	00 30 W	"	Fe/ND No/-	6-6-6 6-6-6
45178	HD 36576	05 27.7	+18 28	05:14	05:23	01 44 W	+18 36	Fe/ND	12-12-
45179	HD 34078	05 09.7	+34 12'	05:26	05:41	01 13 W	+34 20	Fe/ND	12-12-
45180	HD 43112	06 01.5	+13 53	05:44	05:52	01 3 W	+13 53	Fe/ND	12-12-
45181	HD 45995	06 25.6	+11 19	05:55	06:07	01 30 W	+11 18	Fe/ND	12-12-
45182	HD 62509 (plate)	07 39.2	+28 16	06:10	06:11	00 30 W	+28 06	Fe/ND	18-18-
45182 F	Focus test							Fe/-	12-12

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Photometric .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 35°F/96%

346

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
120/300		7.08	B2V	BC	830/.68	85	IIaO e	B	Runaway ?	37°F 506	Fine
							IIaO-E				
400/500	3"	2.29	O9.5III	"	"	"	"	A	Runaway ?		
400/300		5.27	B0III	"	"	"	"	B	"		
30/300		6.77	F7I	"	1200/	"		A	Hyades Cl	38° 504	
40/300		5.16	B2e	"	1200/	"	IIIaJ-E	B	Be-Sh		
40/80		"	"	"	1200/.7	1200/.7	098-02	A	"		good
100/150		5.71	B2-3V	"	830/.42	85	IIaO-E	B	Runaway ?	38° 507	
100/150		6.18	O9.5I	"	"	"	"	A	"		
30/60		5.67	B1I	"	"	"	"	B	"		
30/60		6.04	B2II	"	"	"	"	A	"		
20/20		2.15	K0III	"	"	"	"	B	Sh Velocity		
				"	"	"	IIIaJ-E	B		39° 537	

347

Thurs / Fri

Date .. Oct. 30/31 .. '80 Observers .. G.I.S.....

8m68° Emulsion Batches: IIaO e. 13050 - 24100

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45183	HD 45995	06h 25.6m	+11° 19'	05:09	6:02	1° 5 W	+11° 18'	Fe/NO	12-12-
45183T	Spectral line	plates	45183 - 84.		15 min @	15V	D4 3900	D3 4500	D3 4.0
45184	HD 43112	06 09.5	+13 53	06:10	6:27	2 35 W	+13 58	Fe/NO	12-12-

Spectr. Temp. +40°F Dome Temp./Hum. +37°F/92% Transparency Conditions Clearing late

Focus 504

Spectr. Temp. +44°F Dome Temp./Hum. /98%

348

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
45m/30	4"	604	B2V mine	BC	839/.68	BS	IIaO e	A	Runaway+	46°F 504	i.i.e sl y flex?
										#2 strong	
30m/20	3	567	BI	"	"	"	"	B	"	44°F cut short by dawn.	sl wk

347

Fri - Sat

Date Oct. 31 - Nov. 1/22 Observers Bien - Jo - Kim

Emulsion Batches: HaD-c 13052 - 13100

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45185F	Focus Test					0 30W	+10 40	E-L	6-16
45185	HD 186791	19 41.5	+10 22	17 44	17 47	0 26W	+10 40	Fe/ND	10-12
45186	HD 187567	19 45.0	+7 39	17 52	18 12	0 47W	17 54	Fe/ND	13-13-
45186T	Spot Check	Ref 45185 — 12			15 min	15W	D4 3920 D3 4320	E4 4800	
45187	HD 189967	19 57.6	+41 43	18 23	19 21	1 45W	+42 02	Fe/ND	12-12 12

Spectr. Temp. +19 F Dome Temp./Hum. 45°/67% Transparency Conditions Fair

Focus 504

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~-1~~				BC	1200/6500	BS	IIaO	B			Cont Red
45'/36	3"	415	K3II	"	"	"	Code	B	stellar		Fine
30'/300	2½"	642	[illegible]	"	"	"	"	B	Runaway*		Fine
							"				
1h/231	3"	783	Bo III	"	"	"	"	A	Runaway ←	Cut short by cloud ~4h	fair/OK

Comparison e/Filter Exp

351

Date Nov. 22 Sun-Mon Observers W.Ir-T.n

Emulsion Batches:
IIa0-E 13050-24100
IIaD ~~X~~ ~~X~~

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45188	HD 186791	19 41.5	+10 22	17 42	17 48	0 36 W	+10 39	Fe/ND	18-18
45189	"	"	"	17 54	17 56	0 43 W	"	"	14-14
45189F	Focus Test							Fe/—	11-11
45189F2	Focus Test	—	—					Fe/ND	2-2
45190	(HD 186688) Survey Field (sunny)	19h 40m.6	29° 01'	19:00	19:35	2h 22 W	+29° 18'	"	3-3
45190F	Focus Test	—	—					Fe/ND	3-3
45190T	Spot Calib	For 45190			15min 07 W	DZ 5450	DZ 5450	DZ 5450	

Spectr. Temp. +43°F ..... Dome Temp./Hum. +38°F / 78% Transparency Conditions . partial cloud .....

Focus ... 506 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... / .....

352

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/38	2"			RC	830/.68	25	IIaE	A	stdvel		Fair effect dirt? Fine
3/4	3"-4"			"	"	20/1.0	"	B	"		fine
				"	"	20/1.0	IIaO	6			coat/ref
				BC+IT	150/.65	250/.3	IIaD	1		plate did not extend the I.T.	
350/10		10.9	?	"	150/.65	.		2	Cosmo Proj.		
				"	"	25/.73	"	3		out of focus	
							"				

353

Date . Nov 4-5 Tue-Wed Observers . Are - Tn .....

Emulsion Batches:
...098-02E...0711.9 - 19100
...098-02E...0711.9 - 23100
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
45191	HD 79227	1h 13.8	57° 42'	2:31	3:09	4:31W	58° 19.8	Fe/ND Ne —	5-5-5 5-5-5
45192	HD 8890	1 22.6	88 46	3:22	3:26	4:05W	89° 04	Fe/ND Ne —	8-8 8-8
45193	HD 14662	2h 16.9	54 55	3 40	4:53	5:10W	55 23	1	5 5 5 5 5 5
45193T	Spot Calib for 45192-94				15min @	15V D3 74 D1 74 D2 4810 Hg 5450			
45194	HD 31964	4h 54.8	43° 41'	4:38	5:05	2:45W	43° 53	Fe/ND Ne —	5 5 5 5 5 5
45195	HD 29139	04 30.2	+16 18	5:14	5:15	3:21W		n	8-8
45195F	Focus Test							Fe/ND	9-9

Spectr. Temp. +47°F Dome Temp./Hum. 138°/97% Transparency Conditions Clear by 2 AM

Focus 501

Spectr. Temp. +42°F Dome Temp./Hum. 34°/97%

Strange Thin Cloud

354

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/200	4"	V 4.95	F0Ia	BC	1200/.7	150μ*	098-02E*	A	Arc Prog	* Last 4x5 broken "V" filter taped on	vslwk sl gray
40/25	"	2.5	F8Ib	BC	1200/.7	"	098-02E	B	"		Extr sl stn. sl gray
400/191	3-4"	5.4	F7Ib	"	"	"	"	A*	"	* Combo A+B	vslwk
							"			Note - no Calib for #45191	
40/22	3"	V 2.09	A8Ia	"	"	150μ	"		Arc Prog		Fine gray
40/20	3"	M 2.39	K5III	"	"	"	098-02E*	A	Stdvel		OK exp gray
				"	"	"	098-02E*	B			Cal blue

355

Emulsion Batches:
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.....
.....

Date ..... Observers .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
96		19 41.5	+10 22	17 38	17 47	0 44W	+10 40	Fe/ND / Ne/—	5 8 / 8 8
97				18 05	18 11	3 24W			
98	HD 204867	21 26.3	-6 01	18 23	18 29	W			
	54 Cyg								
				20 34				Fe/ND	13-
			Nov 25				A		
		19 41.5		17 18	17 22	1 39W	B	Ne/— Fe/ND	3- 5
							A		

40/23 A
40/22 B
401 22 A

357

Tests to do

July 2-3 - Try extreme slicer guiding Top, bottom & sides of slot to test uneveness of Fig wide responses

July 9 Is BS slot centered for max efficiency - Image weaker on right than Left also image can be focused to be more slender on the left of slot.

R.C. sensitivity = good for Hα but drops b/4e
of D lines ie " below 5900 Å